# Implications of Self-Determination Theory on Student Performance 

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#### Abstract

Self-Determination Theory (SDT) proposes that autonomy, belonging, and competence are major contributors to human motivation. To test this, several randomized controlled trials were developed to test the pillars of SDT. Skill Builders in ASSISTments were developed to deploy the proposed studies. The data were processed first with python to extract relevant features, and SPSS was used to generate statistic analyses. The statistics were then analyzed to validate the claims of SDT.

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## 1. Introduction

### 1.1 Self-Determination Theory

Motivation is pivotal to the accomplishments humans have made as a race. There have been many theories of motivation that have been established, including Herzberg Two-Factor Theory (Herzberg, 1959), ERG Theory (Alderfer, 1969), and Temporal Motivation Theory (Steel, 2006). To better quantify what motivates us in general, Self-Determination Theory (SDT) was proposed in 1985 (Deci, 1985). It provides a broad yet focused framework from which studies can be viewed to determine the effects of human motivation. SDT proposes that motivation lies on a spectrum ranging from intrinsic to extrinsic to amotivation, where intrinsic motivation leads to the best performance in tasks. Intrinsic motivation encompasses tasks that subjects desire internally to complete through forces such as curiosity, passion, and values. Extrinsic motivation, on the other hand, is concerned more with the rewards received from completing tasks, such as money, grades, or opinions. Extrinsic motivation tends to fade when the rewards fade, but internal motivation is more persistent--beyond extrinsic motivation is amotivation, which is the lack of desire for a particular task. External factors can help move motivation along the spectrum. It is rare that motivation is purely intrinsic, especially for children, since they may not yet be developmentally ready. Generally, external factors can help move motivation toward internalized forms of extrinsic motivation. SDT proposes three main pillars to classify these external motivational factors: Autonomy, Belonging, and Competence (Self-Determination Theory, 2018).

Autonomy is concerned with an individual's perception of choice. The idea is that having the ability to shape one's own destiny yields an investment in a task, since the participants are actively choosing rather than being forced to complete that task. Since there is a choice, the outcome is theoretically that the motivation becomes more intrinsic as the individual reflects on what the task at hand really means for their future. Having a choice can also make them feel like their time and inputs are valuable, as well as give them a feeling of responsibility for their choices.

Belonging is related to feeling like a part of a larger group. People tend to perform tasks for other people, because they want to develop a stronger connection with them (Ryan, 2000). This is especially evident in younger people, who exhibit stronger internal motivation to please people they respect, such as their parents, teachers, or peers. Belonging is manifested by relationships, which can intrinsically motivate individuals to do tasks for the common good.

Competence is a measure of the level at which an individual can perform a given task. It is linked to confidence in one's abilities to achieve something, and leads to a desire for higher achievement. People are more motivated to do tasks that they already know how to do, and are confident they can again do it well. A higher degree of competence implies that the individual will be making a positive impact with relatively little effort.

### 1.2 ASSISTments

The platform used to present problem sets to students is called ASSISTments. It provides a framework to develop modular sequences of problems and deploy them at a large scale, and is used by middle and high schools across the nation in varied environments. It has two main parts: the classroom
aspect, which is what students use to complete assignments and teachers use to view progress and a Problem Set Builder, which is used by teachers or researchers to design problem sets for deployment.

### 1.2.1 Platform

The ASSISTments platform is used by teachers for a variety of reasons. It is used as a way to give automatic feedback to students regarding their level of understanding of different problems, as well as to track students progress. ASSISTments allows the teachers and students to understand how well certain skills are known. Teachers also use it to find common misconceptions in the classroom, allowing them to refine their teaching style. To use the system, the teacher first 'assigns' a student, or group of students a specific problem set ID which corresponds to a sequence of questions. The correctness of the questions is based on the number of attempts and hints the student uses to get the right answer. In general, the question is marked as correct if the student answered it correctly on the first try. If the student doesn't get the question right on the first try, they may still get partial credit if they answer correctly depending on the grading rules the teacher has in place.

Teachers can assign pre-made Skill Builders, which are usually classified by their Common Core State Standards String. These strings consist of four parts separated by periods going from a very broad description of the assignment to a very narrow one. The order of the parts are the grade number, the letters describing the domain of the problem, the number of the criterion the problem set teaches, and lastly the subtask of the criterion (National Governors Association Center for Best Practices, 2010). An example of this would be the string "6.NS.B.3". This indicates that the skill is a sixth grade skill dealing with Number System (NS), and is on computing fluently with multi-digit numbers (B), and is specifically concerned with adding, subtracting, multiplying, and dividing decimals (3). There may be several slightly different premade Skill Builders in ASSISTments with the same string. All these Skill Builders align with the Common Core Standards which provide a standard for state education curricula.

Teachers can also make their own Skill Builders to more accurately target their class's skill levels. They can do this by looking through the Common Core Skill Builders and selecting the questions that they find pertinent to the skills they are teaching. Researchers can similarly make Skill Builders to make randomized controlled trial experiments to find effects that may increase the efficiency of teaching math skills to students. Skill sets can be built by both the Teacher and the Researcher by using the Skill Builder.

### 1.2.2 Testbed

The ASSISTments builder allows unique problem sets to be constructed using four main section types: Complete All, Skill Builder, Choose One, and If-Then-Else. Complete All requires students to complete all listed problems in a section. This can be done in two ways: linear or randomized. Linear Complete All modules require that students finish all problems in the order they are listed. While randomized Complete All modules still require students to complete all the problems, the order they are presented in is randomized.

Skill Builders pull content from a skill pool of around 100 problems, and students are required to accurately answer a preset number of consecutive problems. This number is usually three, but it can be changed by teachers or researchers as desired . Skill Builders can also be random or linear. In Linear Skill Builders the pool of problems is traversed in order until the student sequentially answers three questions
correctly, at which point they exit the module. The randomized version presents the questions in a random order and terminates when three questions are correctly answered in a row.

Choose One and If-Then-Else section types help to control the flow through the problem sets. Choose One sections contain additional sections and will assign students to one based on random chance, which can be used to assign students to groups within a randomized controlled trial. If-Then-Else takes three sections and presents the first to a student. If they score above a predefined threshold within that section (i.e., the score from one or more problems) they are presented with a second "then" section. Otherwise, they received a score below the threshold and are placed in a third, "else" section. This section type can be used to present students with choices, for instance by using a multiple choice question as the conditional statement with an option marked as "correct" and the other as "incorrect". The question can also be redacted from the students’ final grade, making the choice purely related to presentation of the problem set.

### 1.3 Prior Works

Bettering education provision and knowledge retention has been a field of study for many years. Past research has identified what mastery entails (Beck, 2013) and has shown that online tutoring platforms can be more helpful than traditional pen and paper grading schemes (Mendicino, 2009). ASSISTments answers these two papers by providing an online platform that has the ability to establish randomized controlled trials using Skill Builders that help students achieve skill fluency. Using ASSISTments, researchers have then been able to identify several treatments that improve teaching.

There are several overarching studies that have explored complexities in the delivery of problem and feedback content. A study on the effectiveness on text versus video hint feedback found that low knowledge students generally did better when they were presented video instruction (Ostrow, 2014). Another study evaluated the delivering a triad of skills in various patterns, either blocked (where skills were grouped together) or interleaved (where skills were mixed). It was found that interleaving skill content helped students pay better attention to the problem set, and thus more effectively master their assignment (Ostrow, 2015). A final study on the availability of hints determined that hints on demand (as traditionally provided by ASSISTments) and hints provided in response to incorrect answers had similar effects on students' performance (Razzaq, 2010). This was attributed to the idea that hints are generally helpful regardless of how they are received.

While many studies have examined the overall effectiveness of online tutoring platforms, the set of studies presented in this report evaluate the effectiveness of treatments as they pertain to the framework of Self-Determination Theory. There is a considerable amount of work that has already tested several aspects of SDT in ASSISTments, which will be reproduced to verify previously observed effects. Autonomy has been tested by using ASSISTments to give students choices during their assignments. If-Then-Else modules can be used to give students autonomy in how they learn, as well as random assignment to arbitrarily separate students. A belonging study has estimated the effect of reflection on morals and values on cognitive performance. A competence study has also evaluated the effects of skill lesson placement on later achievement and perceptions of competence (Ostrow, 2018).

## 2. Methodology and Results

The seven experiments performed followed similar overarching structures. First, the experiments were conceived based on the pillars of SDT. The experiments were then embedded into ASSISTments Skill Builders which would aid in reaching a wide, uniformly distributed audience. The Skill Builders were left for teachers to assign to their students for 6 months, and after that time had elapsed, the data were pulled from the ASSISTments database using the Assessment of Learning Infrastructure available through the ASSISTments TestBed (The ASSISTments Team, n.d.). To analyze the data, metadata was first gathered, which included the number of schools the problem set was deployed to, and the median prior percent correct metric, which measures the average score for all prior skill builders the student has attempted prior to entering the study. Four main metrics were chosen based on skill builder performance to assess the effects of the experiments: hint average, attempt average, median time, and post test score.

Hint average is the total number of hints from the problem set (not including the post test) divided by the number of non-trivial questions there were in the problem set. To get accurate accounts of the hint usage, transition questions that let students know how they are progressing through the assignment are ignored, along with any other question they cannot get wrong. For hint averages, a lower number is generally better, indicating that there were less hints needed to complete the problem set.

Attempt average is an average of the attempts for non-trivial questions in the problem set. This again does not include the post test, and a lower score is generally better.

Median time is the median time to complete problems in the problem set. The median was chosen because there are often extreme outliers in time data within ASSISTments due to students taking breaks or walking away from their computers while leaving the tutor open, and the median is less sensitive to these data points than the average. The outliers make the average positively skewed, and the data tends to follow a drastic curve. Lower median times indicate quicker performance on the data set.

The post test score was a measurement of the correctness of the post test. All students received the same post test, and their percent correct is indicative of their mastery of near and far transfer items related to the assessed skill.

To sort the data from the raw format downloaded from the ASSISTments website to the form used for the analysis a program was written in python. The program identified the headings in the data that were relevant to the metrics, and looped through each students responses. To do this, several lists were made: noCount, groupPartition, and experimentPartition. noCount contained all the problem IDs that were trivial; they either did not have wrong solutions or were not pertinent to the problem set. The groupPartition list contained several problem IDs that could be used to identify the group of the student. The group is usually dependent on the experiment being studied, but it further partitions the experimental and control sets in general. The experimentPartition list had problem IDs that separated the students into treatment and control groups. The full code can be found in Appendix B.

Once the data were sorted and the metrics were established, attrition rates were examined to make sure the experiment did not cause a difference in the number of students who dropped out of the study. If there had been a difference, the reason for drop out would have to be analyzed and taken into account when viewing the data. Then the mean and standard deviation were calculated for the different treatment groups to see overall trends. An ANOVA was performed for each of the metrics to assess effects of the experimental conditions.

### 2.1 Autonomy Study 1: Hint Choice

## Hypothesis

Having control over one's own actions is an intrinsically motivating force. Allowing students to choose the type of help they will receive should make them more invested in their learning.

## Design

### 2.1.1 Flowchart



Figure 2.1.1 Problem Set Flowchart

The problem set begins with a single question to determine whether or not the students can see video. If they are not able to see video, they are sent into a regular random Skill Builder. If they were able to correctly see the video, they pass into the experiment. The study then uses random assignment to place students in either the choice condition or the no-choice condition. In the choice condition, there is a single question that asks the students whether they would rather have video or text hints. The answer to that question sorts them into the corresponding hint style that they chose, which consists of 10 questions given in a random order. Video questions are 10 questions with hints that have videos, and Text Questions are the same 10 questions that have text hints following the same wording as the video hints. Students who are in the no choice condition are randomly assigned to a text or video Skill Builder. Once the students complete their respective Skill Builder, they enter the post test, a linear complete all section.

### 2.1.2 Experimental Treatment

Before the experiment begins, the students will determine whether or not they can see video hints. If they cannot see videos due to school policy or hardware restrictions, they will not be included in the study. The experimental group will receive the ability to have their own choice as to the type of hints they will receive. They can choose between having video-based hints or having text-based hints. Once they choose, they cannot change the type of hints they receive.

### 2.1.3 Control

The control group will be randomly assigned either text hints or video hints since we already know they can see video as they have entered the experiment.

### 2.1.4 Problem Set Information

This experiment was built on the common core strand F.B. 4 and was deployed for students in eighth grade. The problem set involved writing equations in slope-intercept form. For brevity, just the post test is shown below; See Appendix B for full problem set.
Problem ID: PRABEDGH
Almost there!
See if you can apply what you've learned to the next few problems.
Select one:
Lets go!
Submit Answer

```
Problem ID: PRAQZAX
                                    Comment on this problem
A deep freezer has a temperature of -6}\mp@subsup{}{}{\circ}\textrm{C}\mathrm{ when it is turned off.
The temperature then rises at }1.2\mp@subsup{2}{}{\circ}\textrm{C}\mathrm{ per minute.
Find ' }\textrm{y}\mathrm{ ', the current temperature of the freezer after x minutes. Fill in the blank below to complete the equation:
y=
Type your answer below (mathematical expression):
Submit Answer
    Show hint 1 of 2
```

Problem ID: PRAQZA2
Comment on this problem
At a book fair, Scott bought a $\$ 4$ tote bag and some books for $\$ 2$ each. If he writes a linear function relating the number of books that he bought to the total amount that he spent, which will
represent the rate of change in the equation?
Select one:
Othe cost for one book
Othe total amount spent
the number of books bought
Othe cost of all the books bought

Figure 2.1.2 Post Test Questions in Autonomy Study 1

## Results

### 2.1.5 Independence of groups

This study reached 177 students from eight different schools and the median prior score for the students in the study was $61.66 \%$. A chi-squared test was performed on the data to determine the homogeneity between the groups with regards to attrition.

Table 2.1.1 Cross Tabulation of Finished and Experiment Conditions

|  | No Choice | Choice | Total |
| ---: | :---: | :---: | :---: |
| Did not Finish | 28 | 25 | 53 |
| Finished | 65 | 59 | 124 |
| Total | 93 | 84 | 177 |

From Table 2.1.1, we can see that in the control group, there were 28 students that were not able to finish, and in the experimental group there were 25 students that did not finish. The Chi-Square value was $\chi^{2}(1)=0.003$, giving a significance of 0.96 which is much larger than 0.05 (the standard threshold to determine significance). Since the significance value is so high, it is safe to say that there was no significant effect regarding attrition between the experiment conditions. Giving the students a choice on the type of hints they receive did not make them quit any more than assigning them different hint types. Because the attrition rate is independent between the experimental conditions, only the students who finished the assignment will be analyzed.

### 2.1.6 Descriptive Data

Table 2.1.2 Means (SDs) of Text and Video Partitions for Four Metrics

| Hint Type | Hint Average | Attempt Average | Median Time | Post Test Average |
| :---: | :---: | :---: | :---: | :---: |
| Text <br> $(\mathrm{N}=80)$ | $.21(.26)$ | $1.16(.28)$ | $53.37(76.96)$ | $.59(.34)$ |
| Video | $.20(.25)$ | $1.18(.31)$ | $39.23(21.95)$ | $.59(.34)$ |
| $(\mathrm{N}=44)$ |  |  |  |  |
| Total <br> $(\mathrm{N}=124)$ | $.20(.26)$ | $1.17(.29)$ | $48.35(63.40)$ | $.59(.33)$ |

Table 2.1.3 Means (SDs) of Choice and No-Choice Partitions for Four Metrics

| Choice | Hint Average | Attempt Average | Median Time | Post Test Average |
| :---: | :---: | :---: | :---: | :---: |
| No Choice <br> $(\mathrm{N}=65)$ | $.15(.22)$ | $1.15(.27)$ | $42.75(36.44)$ | $.56(.32)$ |
| Choice | $.27(.28)$ | $1.19(.31)$ | $54.52(83.57)$ | $.62(.35)$ |
| $(\mathrm{N}=59)$ | $.20(.26)$ | $1.17(.29)$ | $48.35(63.40)$ | $.59(.33)$ |
| Total <br> $(\mathrm{N}=124)$ |  |  |  |  |

The means and standard deviations are shown in the tables above. Between the experiment and control groups, there was a relatively even distribution in number of participants. Between video and text, however, there was an apparent skew towards text hints ( 80 students in the text partition vs. 44 students in the video partition). This implies that the students chose video less often since the control had equal assignment between the two choices. The ratio of students who chose video to text is roughly 1:5. Preference for text hints is reflected in results found in a study on text vs. video for different problem sets (Ostrow, 2014).

### 2.1.7 Analysis of Hint Average



Figure 2.1.3 Q-Q Plots for Experiment and Group Partitions
Based on the Q-Q graphs of this data split both on the Text/Video and Choice/No Choice, the data fall roughly on the trend line, indicating that the data is normal. There are a couple of outliers in the average number of hints, but nothing deviates too strongly from the line. Relatively normal distributions coupled with sample size suggested that we were able to proceed with ANOVA analyses.

Table 2.1.4 ANOVA results for Hint Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta <br> Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Choice | .18 | 1 | .18 | 3.96 | .049 | .03 |
| Hint Type | .01 | 1 | .01 | .18 | .675 | .01 |
| Choice * Hint Type | .05 | 1 | .05 | 1.01 | .316 | .05 |
| Error | 5.52 | 120 | .05 |  |  |  |



Figure 2.1.4 Marginal Means of Hint Average
Based on table 2.1.5, there was a significant main effect of choice, $F(1,120)=3.96, \mathrm{p}=.049$, partial $\eta^{2}=.03$. This shows a strong correlation between the number of hints that the students used based on the fact that they were given a choice to select the style of their hints. From the graph of estimated marginal means, it is evident that when students are given a choice of hint type, they request significantly more hints when they prefer text. This may be best explained by the fact that the students were aware of
the hints (Patall, 2008). The act of choosing a certain type of hint may have prompted students to check to see if the hints were indeed the version they chose. Although not directly related to Self-Determination Theory, the finding was telling of other psychological forces at play with regards to hint usage.

### 2.1.8 Analysis of Attempt Average



Figure 2.1.5 Q-Q Plots for Experiment and Group Partitions

These graphs show that the data is relatively normal. There are a couple of outliers, but for the most part the graphs are normal. It is easy to have outliers with students since there are a lot of extenuating circumstances that would affect their attempts

Table 2.1.5 ANOVA results for Attempt Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta <br> Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | .00 | 1 | .00 | .03 | .864 | .00 |
| Choice | .05 | 1 | .05 | .44 | .507 | .05 |
| Hint Type * Choice | .28 | 1 | .28 | 2.65 | .106 | .28 |
| Error | 12.68 | 120 | .11 |  |  |  |



Figure 2.1.6 Marginal Means of Attempt Average
Based on the ANOVA results, when considering average attempt counts there was a near significant interaction effect between having a choice and the type of hint that was received, $F(1,120)=$ $2.65, p=.106$, partial $\eta^{2}=.28$. It appears that having a choice and choosing video was correlated with using more attempts, whereas having no choice and being assigned video was correlated with using less hints.

### 2.1.9 Analysis of Median Problem Time



Figure 2.1.7 Q-Q Plots of Experiment and Group Partitions

The Q-Q graphs for the median time show relatively large deviation from the trend line. Although this indicates a lack of normality, it can be seen that the data are skewed the same way for all four of the graphs. Since the graphs slice the data in several ways, the time it takes to complete the problem set is pretty homogenous across all the partitions. Based on the data, the time appeared to follow an exponential curve more than a straight line, so this test of fitting it to a straight line may not be the best way to represent the normality of the data. These results have been seen in the other studies as well, so it is likely due to the nature of the metric rather than any actual error in data.

Table 2.1.6 ANOVA results for Median Time

| SS | df | Mean Square | F | Sig. | Partial Eta <br> Squared |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | 5530.40 | 1 | 5530.40 | 1.37 | .244 | .01 |
| Choice | 2132.98 | 1 | 2132.98 | .53 | .468 | .01 |
| Hint Type * Choice | 1543.75 | 1 | 1543.75 | .38 | .537 | .01 |
| Error |  |  |  |  |  |  |



Figure 2.1.8 Marginal Means for Median Time

From the ANOVA results, there is again no statistically significant effect based on the time it takes to answer questions based on the data. Based on the interaction plot, it does seem that having a choice implies that you will take longer on the problem set, but having video will reduce the time it takes to answer questions. Note that these effects are not significant, and thus cannot be reasonably concluded without further testing which could reduce or enhance this effect.

### 2.1.10 Analysis of Post-Test Correctness



Figure 2.1.9 Q-Q Plots for Experiment and Group Partitions

These Q-Q plots show that the data for Post Test Average is very normal across all the partitions. This is important because the post test is the most indicative of the effect the treatment had on the population overall.

Table 2.1.7 ANOVA Results for Post Test Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta <br> Squared |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | .00 | 1 | .00 | .00 | .951 | .00 |
| Choice | .10 | 1 | .10 | .91 | .342 | .01 |
| Hint Type *Choice | .00 | 1 | .00 | .00 | .972 | .00 |
| Error | 13.58 | 120 | .11 |  |  |  |



Figure 2.1.10 Marginal Means of Post Test Score
Although there wasn't a significant main effect of choice, $F(1,120)=.91, p=.342$, partial $\eta^{2}=$ .01 , there was a pretty stark difference in the post test result averages as shown by the graph of the marginal means. There was about a 0.06 point gain by having a choice. The standard deviation is quite large, however, so the results would need to be further explored. If this finding were true, it would support the autonomy aspect of self-determination theory, as the presence of choice would positively impact the student's performance. This would imply that because the students have input in their problem set as to the type of hints they receive, they learn the content that they've had the problem set on since they are
invested in the assignment. Based on Figure 2.1.10, it does seem that the type of hint they choose has no effect. What matters is that there is a choice rather than the outcome of the choice.

Table 2.1.8 ANOVA Results considering Knowledge Level for Post Test Score

|  | SS | df | Mean Square | F | Sig. | Partial Eta <br> Squared |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | . 00 | 1 | . 00 | . 01 | . 920 | . 00 |
| Choice | . 11 | 1 | . 11 | . 93 | . 336 | . 01 |
| Knowledge | . 03 | 1 | . 03 | . 28 | . 595 | . 00 |
| Hint Type * Choice | . 00 | 1 | . 00 | . 00 | . 952 | . 00 |
| Hint Type * Knowledge | . 12 | 1 | . 12 | 1.03 | . 314 | . 01 |
| Choice * Knowledge | . 06 | 1 | . 06 | . 49 | . 484 | . 00 |
| Hint Type * Choice * | . 00 | 1 | . 00 | . 02 | . 885 | . 00 |
| Knowledge |  |  |  |  |  |  |
| Error | 13.41 | 116 | . 12 |  |  |  |



Figure 2.1.11 Marginal Means of Post Test Score for Low-Knowledge Students


Figure 2.1.12 Estimated Marginal Means of Post Test Score for High-Knowledge Students

Upon further analysis of the data, splitting on the prior knowledge of the student resulted in further interesting results. The results, however are not statistically significant, but the results mimic prior
research (Ostrow, 2014). The graphs maintain that having a choice improves the post test score, but splitting based on the knowledge level of the student unveils another potential effect. The finding is that the video hints seem to positively affect the low-knowledge students who were below the median prior percent correct value. The high-knowledge students were inversely affected by the content of the hints. With high knowledge students, the videos seem to have a negative effect.

### 2.1.11 Discussion

Overall the most significant effect of letting students choose the types of hints they get was the number of hints that the average student used. This was an interesting effect that seems at first to imply that students who get to choose their hint medium need more hints. In reality, a likely explanation would be that students are actually verifying that their choice has a real consequence. Because they are aware that they are making a choice, they are more likely to see if their choice had an effect on their assignment. Seeing that it does satisfies their curiosity. The increase in hints may show that the students actually do care about the choices they make. This supports the axiom proposed in self determination theory.

Although not necessarily significant, there were also sizable differences in the post test score. Based on the means of the data, there was about a 6 point increase on post test score. Based on the knowledge split, there was also an interesting trend in text versus video. For students below the median prior percent correct, video feedback had a positive effect as opposed to text. For the students above the median, text appeared to fair better. It is also noted that the difference in score for having choice is a wider gap for students below the median.

Another oddity of this dataset is that there is a very large significance value (Sig. > 0.50) based on the knowledge split in the post test. Usually the prior knowledge of the students has very small significance value, meaning that the past knowledge of a student has a strong effect on the post-test score. Since this is not the case, this data could imply that the prior knowledge is not significant.

### 2.2 Autonomy Study 2: Mastery Level Choice

## Hypothesis

Allowing students to choose the level of mastery they wish to achieve will make them more invested in completing their problem set.

## Design

### 2.2.1 Flowchart



Figure 2.1.1 Flowchart of Experiment

Students are immediately sorted into choice categories or no-choice categories. In the choice category, students are asked if they want to answer the recommended amount of questions or a non-standard amount. If they want to answer the recommended number of questions, they are sent to the 4 correct category which is a random order Skill Builder requiring 4 consecutive correct answers to reach mastery. If they choose to answer a non-standard amount, they can then choose more or less than the recommended amount. If they choose more, they must answer 5 correct in a row, and if they choose less, they must answer 3 correct in a row. Students in the no-choice group are randomly assigned 3, 4, or 5
correct in a row. Once the students have completed their associated problem set, they are given the post test, a linear complete all section.

### 2.2.2 Experimental Treatment

The experimental group will be given the choice to define how well the want to know the material they are learning. Once they enter the experimental group, they will be given the choice of low medium or high proficiency. If they choose low proficiency, they will be required to answer 3 correct questions in their Skill Builder. Medium will result in 4 correct questions, and high will result in 5 correct questions in a row. Once the student chooses their desired mastery level, they cannot change it.

### 2.2.3 Control

The control group will receive a random assignment of three, four, or five correct. This will maintain symmetry with the experimental treatment and allow for better comparison between the groups. It provides the same experience as the experimental treatment but removes the choice.

### 2.2.4 Problem Set Information

This experiment was built on the common core strand NS.A.2c and was deployed for students in seventh grade. The problem set involved multiplying integers. For brevity, just the post test is shown below; See Appendix B for full problem set.

Problem ID: PRABEUH6
If an odd number of negative numbers are multiplied together, which of the following is true about their product?
Select one:
Oit will be even
it will be negative
it depends on the numbers being multiplied
it will be odd
Subt will be positive
Submit Answer

```
Problem ID: PRA7PWK
B) }(-a\mp@subsup{)}{}{*}0=
C) (-a)*1=(-a)
D) (-a)*b=b*(-a)
Select one:
A
B
O
```



```
Submit Answer
Problem ID: PRABAWP9
A plane descends at a rate of 212 feet per minute. What will the total change in elevation be after 6 minutes?
Type your answer below as a number (example: 5, 3.1, \(41 / 2\), or \(3 / 2\)
\(\square\)

Figure 2.2.2 Post Test Questions

\section*{Results}

\subsection*{2.2.5 Independence of Groups}

This study reached 301 students from seven schools. The median prior percent correct was \(72.66 \%\). To determine the independence of groups with regards to attrition rates, a Chi-Squared test was performed.

Table 2.2.1 Cross Tabulation of Finished and Choice Partitions
\begin{tabular}{ccccc}
\hline & & \multicolumn{2}{c}{ Finished } & \\
\hline Experiment Partition & No Choice & Unfinished & Finished & Total \\
& Choice & 8 & 139 & 146 \\
& & 15 & 147 & 155 \\
& Total & & 286 & 301 \\
\hline
\end{tabular}

The data show that there were only 7 students who quit from the non-choice group and 8 students who quit from the choice group. Because these numbers represented similar proportions of the sample, it can be assumed that the rate of attrition was consistent across experimental conditions. The Chi-Squared test value, \(\chi^{2}(1)=.021\), showed a consistent result where the significance was .884 . Since this is much larger than 0.05 , the null hypothesis is valid, indicating that the groups are independent with respect to attrition rates.

\subsection*{2.2.6 Descriptive Data}

Table 2.2.2 Means (SDs) of Choice Partition for Four Metrics
\begin{tabular}{ccccr}
\hline Experiment Partition & Hint Average & \multicolumn{1}{c}{ Attempt Average } & \multicolumn{2}{l}{ Median Time }
\end{tabular} Post Test Average

Table 2.2.3 Means (SDs) of Mastery Partition for Four Metrics
\begin{tabular}{ccccc}
\hline Mastery Level & Hint Average & Attempt Average & Median Time & Post Test Average \\
\hline \begin{tabular}{c} 
Three Correct \\
\((\mathrm{N}=92)\)
\end{tabular} & \(.01(.03)\) & \(1.07(.05)\) & \(11.31(8.04)\) & \(.63(.23)\) \\
Four Correct \\
\((\mathrm{N}=110)\) & \(.00(.01)\) & \(1.01(.07)\) & \(11.67(8.31)\) & \(.62(.23)\) \\
Five Correct \\
\((\mathrm{N}=84)\)
\end{tabular}

The data show that the distribution between the experimental condition and the mastery level were pretty consistent. Assuming that the non-choice partition was equally distributed among the three mastery levels, we see that there is a split of around 46-64-38 for 3-4-5 in a row respectively. Most students chose the recommended amount, but there were comparable amounts that chose both a higher level and lower level of mastery. The recommended amount was slightly more probable than a non-recommended amount, but there was not a major skew. Another notable feature is that no one in the Five Correct group needed a hint.

\subsection*{2.2.7 Analysis of Hint Average}


Figure 2.2.3 Q-Q Plots of Experiment and Group Partitions

The Q-Q Plots suggest that the data is not normal. This is probably due to ceiling effects because there were so few data points, as most students didn't use very many hints, or really any at all. There was also no one in the Five Correct category who needed a hint, which made it impossible to draw a trend line, since there was only one data point. Even though the points didn't fall on the trend line, they do line up mostly on a straight line, so they can still be counted, just with more scrutiny.

Table 2.2.4 ANOVA results for Hint Average
\begin{tabular}{lcccccc}
\hline & SS & df & Mean Square & F & Sig. & Partial Eta Squared \\
\hline Choice & \(6.16 \mathrm{E}-5\) & 1 & \(6.16 \mathrm{E}-5\) & .16 & .688 & .00 \\
Mastery Level & .00 & 2 & .00 & 3.74 & .025 & .03 \\
Choice * Mastery & \(3.96 \mathrm{E}-5\) & 2 & \(1.98 \mathrm{E}-5\) & .05 & .950 & .00 \\
Level & .11 & 280 & .00 & & \\
Error & .11 & 286 & & & & \\
Total & .11 & 285 & & & & \\
Corrected Total & & & & & \\
\hline
\end{tabular}


Figure 2.2.4 Marginal Means of Hint Average
Results from the ANOVA showed a significant effect across the Mastery Level, \(\mathrm{F}(2,280)=3.74\), \(p=.025\), partial \(\eta^{2}=.03\). This makes sense because as more questions in a row are completed, the less hints they use overall, and thus the lower their average is for hints during the problem set. There were some ceiling effects in this measurement where entire groups of students did not use any hints at all.
2.2.8 Analysis of Attempt Average


Figure 2.2.5 Q-Q Plots for Attempt Average in Experiment and Group Partitions
Again, these graphs seem to deviate a bit from the trendlines, but there is again a heavy weight toward answering questions correctly on the first try for all questions. The points still line up on a straight line, even if is not the trend line, so the observations are probably normal for the most part.

Table 2.2.5 ANOVA Results for Attempt Average
\begin{tabular}{lcccccc}
\hline & SS & df & Mean Square & F & Sig. & Partial Eta Squared \\
\hline Choice & .01 & 1 & .01 & 1.58 & .209 & .01 \\
Mastery Level & .01 & 2 & .00 & 1.21 & .300 & .01 \\
Choice * Mastery & .00 & 2 & .00 & .16 & .850 & .00 \\
Level & .80 & 280 & .00 & & & \\
Error & 293.69 & 286 & & & & \\
Total & .81 & 285 & & & & \\
Corrected Total & & & & & & \\
\hline
\end{tabular}


Figure 2.2.6 Marginal Means of Attempt Average
Although there were no significant effects, there is a practical difference in attempts when students are given a choice. On average, the students used fewer attempts on the problem set when they were given a choice. Again, there is a negative trend with the mastery level choice which indicates that the more students practice, the better they do.


Figure 2.2.7 Q-Q Plots of Experiment and Partition Data

Again these follow more of an exponential curve, which is expected from time-based metrics. They still relatively follow the trend lines and can be interpreted as normal.

Table 2.2.6 ANOVA Results for Median Time
\begin{tabular}{lcccccc}
\hline & SS & df & Mean Square & F & Sig. & Partial Eta Squared \\
Choice & 6.15 & 1 & 6.15 & .10 & .75 & .00 \\
Mastery Level & 245.13 & 2 & 122.57 & 2.06 & .13 & .02 \\
Choice * Mastery Level & 152.54 & 2 & 76.27 & 1.28 & .28 & .01 \\
Error & 16634.69 & 280 & 59.41 & & \\
Total & 51382.37 & 286 & & & & \\
Corrected Total & 17000.93 & 285 & & & & \\
\hline
\end{tabular}


Figure 2.2.8 Marginal Means of Median Time

There were no strongly significant effects in the Median Time for this experiment. The nearest effect there was was over the Mastery level. As more questions were answered correctly in a row, the faster students got. This supports the idea that repetition increases speed and accuracy. Having a choice also seemed to decrease time overall for four and five correct. This supports the autonomy aspect of self determination theory.

\subsection*{2.2.11 Analysis of Post Test Correctness}


Figure 2.2.9 Q-Q Plots for Experiment and Group Partitions
The post test data strongly follows the trend lines for this experiment, indicating that the data collected fit assumptions of normality.

Table 2.2.7 ANOVA Results for Post Test Score
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & SS & df & Mean Square & F & Sig. & Partial Eta Squared \\
\hline Choice & . 10 & 1 & . 10 & 1.83 & . 178 & . 01 \\
\hline Mastery Level & . 03 & 2 & . 02 & . 29 & . 747 & . 00 \\
\hline Choice * Mastery Level & . 25 & 2 & . 13 & 2.37 & . 096 & . 02 \\
\hline Error & 14.87 & 280 & . 05 & & & \\
\hline Total & 125.72 & 286 & & & & \\
\hline Corrected Total & 15.19 & 285 & & & & \\
\hline
\end{tabular}


Figure 2.2.10 Marginal Means of Post Test Score
There was a near significant effect in the interaction between having a choice and the mastery level chosen, \(F(2,280)=2.37, p=.096\), partial \(\eta^{2}=.02\). For three and five correct, having a choice seemed to be detrimental to students' performance on the post test, whereas choosing the recommended amount seemed to be better than being assigned the recommended amount. To further explore what was happening, the groups were further split into high and low knowledge students.

Table 2.2.8 ANOVA Results for Post Test Score Including Knowledge Level
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline & SS & df & Mean Square & F & Sig. & Partial Eta Squared \\
\hline Choice & . 10 & 1 & . 10 & 1.91 & . 169 & . 01 \\
\hline Mastery Level & . 04 & 2 & . 02 & . 39 & . 676 & . 00 \\
\hline High Knowledge & . 08 & 1 & . 08 & 1.40 & . 237 & . 01 \\
\hline Choice * Mastery Level & . 21 & 2 & . 11 & 1.97 & . 142 & . 01 \\
\hline Choice * High Knowledge & . 00 & 1 & . 00 & . 06 & . 813 & . 00 \\
\hline Mastery Level * High & . 13 & 2 & . 07 & 1.21 & . 299 & . 01 \\
\hline \multicolumn{7}{|l|}{Knowledge} \\
\hline Choice * Mastery Level * & . 03 & 2 & . 01 & . 27 & . 763 & . 00 \\
\hline \multicolumn{7}{|l|}{High Knowledge} \\
\hline Error & 14.59 & 274 & . 05 & & & \\
\hline Total & 125.72 & 286 & & & & \\
\hline Corrected Total & 15.19 & 285 & & & & \\
\hline
\end{tabular}


Figure 2.2.11 Marginal Means of Post Test Score for Low-Knowledge Students


Figure 2.2.12 Marginal Means of Post Test Score for High-Knowledge Students

Here it is noted that having a choice seems to have little effect based on the mastery level chosen for low-knowledge students. The high-knowledge students, however, did seem to have a more radical response between the ability to choose and the number they chose.

\subsection*{2.2.11 Discussion}

Based on the Autonomy pillar of Self-Determination Theory, the experiment performed agreed that increased autonomy benefited students' performance. This was supported by the average number of attempts and median time per question, but to a lesser extent in the post test score. Number of Attempts, while not significant, showed that there was an overall decrease in the number of hints used when students had a choice in the level of mastery they would practice. The drop was only by about . 01 attempts on average but there was a consistent lower value for the students in the experimental treatment.

The median time metric likewise supported that autonomy invests students more in their work. The median time was shown to decrease by about 1.5 seconds for students in the four and five correct groups, but was one second more for students in the three correct group. There was less time taken by the students when they got to choose, which supports that autonomy is a motivator to remain focused on the problem set. It is also possible that since the students were actively choosing to do less than the recommended amount, they felt guilty about choosing to do less than the standard, so they payed a great amount of attention to the questions they did do.

Hint Count did not appear to support the notion that autonomy increases motivation. This result was again not significant, and it only resulted in a difference of about .001 hint per problem, so the inconsistency can be noted, but it holds little bearing on the overall effect of the experiment. Because the difference is so small and the result is insignificant, for practical purposes, it can be assumed that the number of hints was relatively unaffected by the experimental condition.

Lastly, the post test score tells a much more interesting story. It is evident from the plots that having the ability to choose, but only choosing the recommended amount is better than being assigned the recommended amount. Choosing to deviate from the norm, however, results in being worse off than just being assigned the amount chosen. This is possibly an effect of perceived competence coming in to play. Potentially, the students who chose to do less felt like they weren't as well prepared for the post test, and felt like they sabotaged their learning. This would result in a lower test score because they believed they weren't prepared. The students who chose to do five correct could have also suffered a blow to their competence. They may have been bored with the extreme repetitivity of trying to get 5 questions correct in a row, such that by the time they get to the post test, they are mentally exhausted.

\subsection*{2.3 Belonging Study 1: Value Affirmation}

\section*{Hypothesis}

Polling students values before they engage in a Skill Builder will increase their interest in completing it as they will feel more connected with their peers.

\section*{Design}

\subsection*{2.3.1 Flowchart}


Figure 2.3.1 Experiment Flowchart

The Experiment began by randomly assigning the students into the Value Affirmation Group, or the Null Value Affirmation Group. The Value Affirmation group was polled on the attribute the most value. The Null Value Affirmation group was polled on what they least Value. Once they were split into these groups, they are further randomly assigned to immediate and delayed surveys. Immediate survey gives the student a survey, then presents them with a randomized Skill Builder. The Delayed Survey first gives students the randomized Skill Builder, then the survey. Once the survey and Skill Builder have been completed, the student completes the post test, which is a linear Skill Builder.

\subsection*{2.3.2 Experimental Treatment}

The experimental group will be broken further into immediate and delayed polling groups. In the immediate group, before beginning the assignment, the student will be asked what trait they most value, and be asked to choose from 54 traits. They will then continue onto the Skill Builder. The delayed group
will first complete the Skill Builder, and then will be polled. Once both groups have completed their assignment, they will be given a post test.

\subsection*{2.3.3 Control}

The control group will also be broken into immediate and delayed polling. The immediate group will first be polled on their least valued trait from a large list, and then be asked to explain why it might be important to someone else. Then they will be given the Skill Builder. The delayed group will first be given the Skill Builder then they will be polled on their least desired trait and explain why it might be important to someone else. Both groups will also be given the same post test to measure their learning.

\subsection*{2.3.4 Problem Set Information}

This experiment was built on the common core strand EE.C.7b and was deployed for students in eighth grade. The problem set involved explaining in words how to solve algebra problems. For brevity, just the post test is shown below; See Appendix B for full problem set.

Problem ID: PRA7AJT
Barb purchased a loaf of bread for \(\$ 2\) and \(p\) pounds of sliced ham at \(\$ 5\) per pound for a total of \(\$ 13.25\). The relationship between what she purchased and her total purchase price is represented by the equation below.
\(5 p+2=13.25\)
What is the total number of pounds of ham that Barb purchased?
Do not include units (pounds) in your response.

Type your answer below as a number (example: 5, 3.1, \(41 / 2\), or 3/2):
\(\square 100 \%{ }^{(2)}\)


Problem ID: PRA32Z3
Comment on this problem
Solve for x :
\(1.5(4 x-1.5)=0.5 x+14.25\)

Type your answer below (mathematical expression):

Submit Answer

Figure 2.3.2 Post Test Questions

\section*{Results}

The experiment was deployed, but due to the time and scope of the project, the results have not yet been analyzed. This can be further explored by the ASSISTments team, or by a future IQP group

\subsection*{2.4 Belonging Study 2: Human Tutoring Intervention}

\section*{Hypothesis}

Belonging relies heavily on close human relationships. Generally, text is not a perfect substitute for human interaction. The idea of this experiment is that having hints that are text will be less effective than having a simple narrated video, which will in turn be less effective than having a real human visual.

\section*{Design}

\subsection*{2.4.1 Flowchart}


Figure 2.4.1 Experiment Flowchart
The experiment began by having the students pass a video check which determined if they would be able to view videos. If they passed, they could enter the study, otherwise, they just received a standard Skill Builder. If they did pass, they were sorted into three different categories at random, where each category had different hints. The first category had only text hints, the next category had video hints, where words were written on the screen, and the last category had video hints where a person was standing in front of a blackboard. Once each student has completed the assigned work, they are administered a post test.

\subsection*{2.4.2 Experimental Treatment}

There will be two experimental groups. Both will involve video, and will thusly need an additional video check in the start of the experiment to see if they can even see a video. If they cannot, they will be sent immediately to the regular version of the assignment and excluded from the study. If they pass, they will either be assigned to the narration videos or the human videos. The narration videos will consist of text drawn on the screen with a human speaking about the text, and the human videos will be a human writing on the whiteboard and speaking in front of a camera. Both of these videos will only appear in place of hints, and if the student doesn't need hints, they will not see the videos.

\subsection*{2.4.3 Control}

The control group will be given text cues for hints.

\subsection*{2.4.4 Problem Set Information}

This experiment was built on the common core strand EE.B.4a and was deployed for students in seventh grade. The problem set involved solving one step addition and subtraction problems. For brevity, just the post test is shown below; See Appendix B for full problem set.
```

Problem ID: PRABESYG
Solve for x:
-x+3=14
Type your answer below (mathematical expression):
\square
\square100% `
Submit Answer

| Problem ID: PRABESYK | Comment on this problem |
| :---: | :---: |
| Solve for r : |  |
| $2.7+r=9.1$ |  |
| Type your answer below (mathematical expression): |  |
| Submit Answer | Show answer |

Problem ID: PRABESYH
Solve for b:
$-16=12+b$

Type your answer below (mathematical expression):
$\square$


Submit Answer

Problem ID: PRABESYJ
Solve for d:
$-12-4+d=-10$

Type your answer below (mathematical expression):
$\square$

Figure 2.4.2 Post Test Questions

## Results

### 2.4.5 Independence of Groups

The study was deployed to 319 students from ten schools. 175 of these students entered the study, and the remainder received a regular Skill Builder as they were not able to view video. For this study, the median prior score of the students was $70.61 \%$. To determine that the experiment condition did not affect the attrition rates of the students, a chi-squared test was performed on the data.

Table 2.4.1 Cross Tabulation of Hint Type and Finished Partitions

|  | Text Hints | Narrated Hints | Human Hints | Total |
| ---: | :---: | :---: | :---: | :---: |
| Did Not Finish | 9 | 10 | 13 | 32 |
| Finished | 50 | 45 | 48 | 143 |
| Total | 59 | 55 | 61 | 175 |

From the data, it appears that the groups are independent. There were 9 students who did not finish who had text hints, 10 students who did not finish with narration hints, and 13 students who did not finish with human hints. The Chi-Square tests showed $\chi^{2}(1)=.74$, with a significance of .692 , indicating that there wasn't a large differential attrition rate across the groups.

Table 2.4.2 Means (SDs) by Hint Type for Four Metrics

| Hint Type | Hint Average | Attempt Average | Median Time | Post Test Average |
| :---: | :---: | :---: | :---: | :---: |
| Text Hints $(\mathrm{N}=50)$ | . 07 (.18) | 1.33 (.57) | 53.96 (57.01) | . 77 (.24) |
| Narrated Hints ( $\mathrm{N}=45$ ) | . 06 (.16) | 1.23 (.36) | 25.81 (15.18) | . 81 (.23) |
| Human Hints $(\mathrm{N}=48)$ | . 05 (.12) | 1.30 (.45) | 31.85 (26.42) | . 72 (.29) |
| Total $(\mathrm{N}=143)$ | . 06 (.16) | 1.29 (.47) | 37.68 (39.67) | . 77 (.26) |

Table 2.4.3 Means (SDs) by Knowledge Level for Four Metrics

| Knowledge | Hint Average | Attempt Average | Median Time | Post Test Average |
| :--- | :---: | :---: | :---: | :---: |
| Low Knowledge <br> $(\mathrm{N}=59)$ | $.09(.17)$ | $1.44(.62)$ | $35.01(21.40)$ | $.72(.28)$ |
| High Knowledge <br> $(\mathrm{N}=84)$ | $.05(.14)$ | $1.18(.29)$ | $39.56(48.61)$ | $.80(.22)$ |
| Total <br> $(\mathrm{N}=143)$ | $.06(.16)$ | $1.29(.47)$ | $37.68(39.67)$ | $.77(.26)$ |

The data show that there was a relatively even spread among the partitions. From the table, we can also see that the Narrated Hints outperformed the other types of hint in all metrics but Hint Average. Hint Average had the best performance for Human Hints. The overall post test score did not seem to encounter severe ceiling effects, so it will be more likely to have beneficial analysis. An interesting quirk to note is that the high knowledge students took longer than low knowledge students to solve the problems. Usually there is a relatively conclusive performance on average from the high knowledge students.


Figure 2.4.3 Q-Q Plots by Hint Type and Knowledge Level for Hint Average

From the graphs, it appears that there are a few outliers. For the most part, however, the data are relatively straight which indicates normalcy.

Table 2.4.4 ANOVA Results for Hint Average

|  | SS | df | Mean <br> Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | .02 | 2 | .01 | .42 | .659 | .01 |
| Knowledge | .04 | 1 | .04 | 1.67 | .199 | .01 |
| Hint Type * Knowledge | .21 | 2 | .11 | 4.63 | .011 | .06 |
| Error | 3.17 | 137 | .02 |  |  |  |



Figure 2.4.4 Marginal Means of Hint Average
There is a significant interaction effect between the knowledge level and hint type of the students across the knowledge levels, $F(2,137)=4.63, p=.011$, partial $\eta^{2}=.06$. High knowledge students need the least amount of hints with text hints, and low knowledge students need less hints when given narrated
hints. Human hints are better than narrated hints for high knowledge students, but worse than narrated hints for low knowledge students.

### 2.4.8 Analysis of Attempt Average



Figure 2.4.5 Q-Q Plots by Hint Type and Knowledge Level for Attempt Average
The Attempt Average follows the trend line pretty well across the partitions of hint type and knowledge level. This indicates that the data are normal.

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | .26 | 2 | .13 | .64 | .527 | .01 |
| Knowledge | 2.07 | 1 | 2.07 | 10.08 | .002 | .07 |
| Hint Type * Knowledge | .56 | 2 | .28 | 1.37 | .257 | .02 |
| Error | 28.16 | 137 | .21 |  |  |  |



Figure 2.4.6 Marginal Means of Attempt Average
Although there was a significant effect in knowledge, $F(1,137)=10.08, p=.002$, partial $\eta^{2}=$ .07, the finding is not insightful since high knowledge students can be expected to need less attepmts for a problem set. There was a noticeable drop in attempt average for the low knowledge students when they received video hints over text hints. Narrated hints seemed to provide a better attempt average for low knowledge students.

### 2.4.9 Analysis of Median Time per Problem



Figure 2.4.7 Q-Q Plots by Hint Type and Knowledge Level for Median Time

Although the distribution is more exponential, the median time falls quite nicely in line with the trendline. This means that the data are normal.

Table 2.4.6 ANOVA Results for Median Time

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | 19351.07 | 2 | 9675.53 | 6.71 | .002 | .09 |
| Knowledge | 1085.24 | 1 | 1085.24 | .75 | .387 | .01 |
| Hint Type * Knowledge | 3377.25 | 2 | 1688.62 | 1.17 | .313 | .02 |
| Error |  |  |  |  |  |  |
|  |  |  |  |  |  |  |



Figure 2.4.8 Marginal Means for Median Time

There was a significant effect based on the Hint Type, $F(1,137)=6.71, p=.002$, partial $\eta^{2}=.09$. Having video hints is universally beneficial with regards to the median time to solve a problem. Narrated hints seemed to provide the best time reduction, up to 30 seconds lower on average for high knowledge students over text hints.

### 2.4.10 Analysis of Post Test Correctness





Figure 2.4.9 Q-Q Plots by Hint Type and Knowledge Level for Post Test Average

The Post Test Scores are relatively normal because they follow the trendline closely. This is true across the different slices of the data set, so the data is normal overall.

Table 2.4.7 ANOVA Results for Post Test Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Hint Type | .20 | 2 | .10 | 1.54 | .218 | .02 |
| Knowledge | .27 | 1 | .27 | 4.25 | .041 | .03 |
| Hint Type * Knowledge | .05 | 2 | .03 | .40 | .673 | .01 |
| Error | 8.80 | 137 | .06 |  |  |  |



Figure 2.4.10 Marginal Means for Post Test Score
Although the only significance was in knowledge level-- $\mathrm{F}(1,137)=4.25, \mathrm{p}=.041$, partial $\eta^{2}=$ . 03 , there was a noticeable increase for high knowledge students by about 5 points when they were given narrated hints. Both knowledge levels suffered when given human hints.

### 2.4.11 Discussion

Overall there was strong support for hints that are narrated videos. The narrated videos outperformed text hints and human explanation videos on all factors for low knowledge students, and for two factors for high knowledge students. The two factors were Post Test and Median Time. Both of these factors are important because they can reflect the learning that happens and the efficiency with which the problems are solved.

Hint Average had an interesting interaction effect. It showed that low knowledge students needed far fewer hints when given narrated videos indicating that the video helped them enough to not need further hints. The high knowledge students on the other hand needed many more hints, indicating that they weren't learning the material as well, and needed more hints to solve the problems. The two knowledge levels met in the middle for hint averages when they were given human hints. The findings suggest that the high knowledge students perform best with text hints over video hints, and the low knowledge students perform better with video hints, specifically narrated video hints.

The Attempt Average told a similar story to the Hint Average. High Knowledge students still did best with text hints hints, but Low Knowledge students performed more efficiently when given narrated video hints. This reflects previous findings, and the findings in the Hint Choice Study (2.1). Giving the students video hints helped the low knowledge students understand the concepts better, and allowed them to perform more consistently on their problem set.

Median time experienced an improvement for both the knowledge levels. It showed that the video hints reduced the median time to answer questions considerably, again with the narrated videos providing the most benefit. This could be because the videos more clearly walk through the method to solve the problems over the text hints, which may be confusing to students. Having a video may help students pay attention and better absorb the information being presented.

The Post Test Scores show further improvement. The High Knowledge students saw an increase of 5 points in the post test score when given narrated hints. Low knowledge students saw a marginal increase. Due to the other metrics being greatly improved, it is still worthwhile for the low knowledge students to be given narrated video feedback. Both knowledge groups, however, experienced a severe drop in post test score when given human feedback. Although human feedback may attempt to provide a sense of belonging, it may actually provide too much additional information, as the students may spend more time interpreting the nuances of body language and mouth movements rather than focusing on the subject at hand. Narrated videos seemed to provide enough human interaction to motivate the students but not too much to distract the students.

### 2.5 Competence Study 1: Adaptive Questions

## Hypothesis

To establish a sense of competence, ASSISTments will give easier problems to students who are struggling, and increase difficulty as students become more confident in their skills.

## Design

### 2.5.1 Flowchart



Figure 2.5.1 Experiment Flowchart

This experiment begins by randomly sorting the students into the Adaptive or Non-Adaptive partition. In the Adaptive condition, the students are given a diagnostic problem. If they get it wrong, they get 3 easier problems to practice prerequisite skills. Once they finish practising the prerequisite skills, they return to the skill at hand. If they correctly answered the diagnostic question, they immediately go to the Skill Builder for the skill the problem set is on. If they were sorted into the non-adaptive section, they immediately get the Skill Builder for the problem set. Once the students have completed their respective Skill Builders, they go on to the post-test.

### 2.5.2 Experimental Treatment

The experiment will offer the students the ability to first practice on easier but related problems if they struggle on the ones they start with. This will be accomplished by first asking a diagnostic problem. If the student gets it right, they continue on with the Skill Builder as usual. If they get the diagnostic question wrong, they will enter the easier version of the Skill Builder. This will allow them to establish a sense of competence that will make them want to continue. This motivation will be reflected by their post test scores.

### 2.5.3 Control

The control group will get no adaptive questions regardless of whether or not they get the diagnostic question right.

### 2.5.4 Problem Set Information

This experiment was built on the common core strand NS.B. 3 and was deployed for students in sixth grade. The problem set involved multiplying decimals. For brevity, just the post test is shown below; See appendix *** for full problem set.
Problem ID: PRA79
$(.5)(.5)(.5)$ is equal to which of the following?
$\overline{\text { Select one: }}$
Comment on this problem
0.000125
0.00125
0.125
Submit Answer
Break this problem into steps


Figure 2.5.2 Post Test Questions

## Results

### 2.5.5 Independence of Groups

The study was deployed to 242 students from five schools. For this study, the median prior score of the students was $62.72 \%$. To determine that the experiment condition did not affect the attrition rates of the students, a chi-squared test was performed on the data.

Table 2.5.1 Cross Tabulation of Finished and Adaptive

|  | Control | Adaptive | Total |
| ---: | :---: | :---: | :---: |
| Unfinished | 7 | 8 | 15 |
| Finished | 126 | 101 | 227 |
| Total | 133 | 109 | 242 |

From the data, it appears that the groups are independent. There were 7 students who did not finish from the control and 8 who did not finish from the experiment condition. The Chi-Square test shows $\chi^{2}(1)=.44$, where the probability that the groups are independent is .505 . This is sufficiently high to assume that the attrition rate was equal across the participants.

### 2.5.6 Descriptive Data

Table 2.5.2 Means (SD) by Knowledge Level for Four Metrics

| Knowledge | Hint Average | Attempt Average | Median Time | Post Test Average |
| :---: | :---: | :---: | :---: | :---: |
| Low <br> Knowledge <br> $(\mathrm{N}=107)$ | $.07(.17)$ | $1.18(.29)$ | $79.65(69.99)$ | $.50(.26)$ |
| High |  |  |  |  |
| Knowledge |  |  |  |  |
| $(\mathrm{N}=120)$ | $.01(.07)$ | $1.10(.28)$ | $35.95(67.26)$ | $.66(.28)$ |
| Total |  | $1.14(.29)$ | $56.55(71.82)$ |  |
| $(\mathrm{N}=227)$ | $.04(.13)$ |  |  | $.59(.28)$ |

Table 2.5.3 Means (SD) by Adaptivity for Four Metrics

| Adaptivity | Hint Average | Attempt Average | Median Time | Post Test Average |
| :---: | :---: | :---: | :---: | :---: |
| Control (N=126) | . 043 (.15) | 1.14 (.30) | 62.06 (87.36) | . 60 (.28) |
| Non-Adaptive (N=83) | . 01 (.05) | 1.06 (.18) | 43.57 (38.33) | . 59 (.28) |
| Adaptive (N=18) | . 10 (.15) | 1.44 (.40) | 77.80 (61.91) | . 47 (.25) |
| $\begin{gathered} \text { Total } \\ (\mathrm{N}=227) \end{gathered}$ | . 036 (.13) | 1.14 (.29) | 56.55 (71.82) | . 59 (.28) |

We can see that although the split between control and experiment was relatively equal, there was considerably fewer student who needed the adaptive part of the experiment. Most people got the diagnostic question correct.

### 2.5.7 Analysis of Hint Average



Figure 2.5.3 Q-Q plots by Adaptivity for Hint Average
The Q-Q plots show that there may not be a normal distribution for the data. Although the points deviate from the trend line given, they are still relatively straight lines, so the data can still be analyzed.

Table 2.5.4 ANOVA Results for Hint Average

|  | SS | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Knowledge | .12 | 1 | .12 | 8.14 | .005 |
| Adaptivity | .07 | 2 | .04 | 2.51 | .084 |


| Knowledge * Adaptivity | .04 | 2 | .02 | 1.42 | .244 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Error | 3.26 | 221 | .02 |  |  |



Figure 2.5.4 Marginal Means of Hint Average

There is a significant effect on knowledge level, $F(1,221)=8.14, p=.005$ and a near significant effect on the partitioning of the groups, $F(1,221)=2.51, p=.084$. The knowledge level is understandable, because the students' past performance is a strong predictor of how they will do on any given problem set.
2.5.8 Analysis of Attempt Average


Figure 2.5.5 Q-Q Plots by Adaptivity for Attempt Average

Attempt average also does not appear to be normal. This is due to some outliers that could be trimmed to receive more understandable results. For the scope of this paper, the untrimmed data set will be analyzed.

Table 2.5.5 ANOVA Results for Attempt Average

|  | SS | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Knowledge | .10 | 1 | .10 | 1.36 | .245 |
| Adaptivity | 1.39 | 2 | .70 | 9.55 | .000 |
| Knowledge * Adaptivity | .06 | 2 | .03 | .40 | .673 |
| Error | 16.11 | 221 | .07 |  |  |



Figure 2.5.6 Marginal Means for Attempt Average
There was a strong significance on adaptivity level for attempts used, $\mathrm{F}(1,221)=9.55, \mathrm{p}=.000$. Students who needed the adaptive section used far more hints than both the control and non-adaptive groups for both high and low knowledge levels.
2.5.9 Analysis of Median Time per Problem


Figure 2.5.7 Q-Q Plots by Adaptivity for Median Time

Median time again follows a more exponential curve, but the data line up along the trend line relatively well, so this data can be viewed as normal.

|  | SS | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Knowledge | 32577.46 | 1 | 32577.46 | 6.93 | .009 |
| Adaptivity | 17963.73 | 2 | 8981.86 | 1.91 | .151 |
| Knowledge * Adaptivity | 1105.40 | 2 | 552.70 | .12 | .889 |
| Error | 1039601.40 | 221 | 4704.08 |  |  |



Figure 2.5.8 Marginal Means for Median Time
There was again a significant effect of knowledge level on the median time used for the problem set, $\mathrm{F}(1,221)=6.93, \mathrm{p}=.009$. This is expected because students who have performed better in the past are usually able to understand material better and answer questions more quickly. There is also almost an effect on the group partition. It appears that students who are in the control take about the same time as students in the adaptive section, but students who are in the adaptive experiment, but don't need the adaptive section take less time.
2.5.10 Analysis of Post Test Correctness


Figure 2.5.9 Q-Q Plots by Adaptivity for Post Test Average
These Q-Q plots show strongly correlated lines, indicating that the data are normal.

Table 2.5.7 ANOVA Results for Post Test Scores

|  | SS | df | Mean Square | F | Sig. |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Knowledge | .32 | 1 | .32 | 4.39 | .037 |
| Adaptivity | .13 | 2 | .07 | .91 | .405 |
| Knowledge * Adaptivity | .07 | 2 | .04 | .47 | .624 |
| Error | 16.18 | 221 | .07 |  |  |



Figure 2.5.10 Marginal Means of Post Test Score

The only significant effect was the knowledge level. From the graph, there is a suggestion that students do slightly worse if they needed the adaptive section regardless of their previous knowledge level. This could just be an artifact from the fact that since they got the question wrong, they would get future questions wrong. Essentially the group partitions aren't completely independent from the knowledge separation, so the dip can be explained by the fact that knowledge has a significant effect.

### 2.5.11 Discussion

Overall the level of adaptivity is difficult to analyze as it splits the data into three groups of unequal sizes. The difference between adaptive and non-adaptive also is not completely independent from the knowledge level split, as students are more likely to be in the adaptive section if they are of the low knowledge category. As a general overarching note, it seems that there was a very large error margin for the high-knowledge students in the adaptive group. This could be that there are high knowledge students who got the diagnostic question wrong because they didn't know how to answer it, or because they made a trivial error. These cases are very different, and would contribute heavily to variance within the means. There were also fewer high-knowledge students in the adaptive section presumably, which would further expand the error range.

The number of hints required from the students show that high knowledge students use far fewer hints than low knowledge students, even when they enter the adaptive section. This could be a reflection of the elevated competence high-knowledge students feel from being successful in the past. A higher competence yields higher confidence, which would drive down the perceived need for external assistance. The low-knowledge students in the adaptive group having a sharp spike in hint usage show that they may not be benefitting from the adaptive questions. The adaptive questions may not have been easy enough for the students to really gain insight into the problem type.

The attempt average was pretty consistent across the knowledge levels. Instead, the partitions showed a significant effect. This is understandable since the adaptive students would have had to have gotten one of the questions wrong to qualify for the adaptive group. This would drive the average up. There doesn't seem to be any non-obvious effects from the experiment, but it is difficult to determine since the groups aren't similarly sized. There is at least no real effect across the knowledge levels.

Median time shows only a significance in knowledge level. This is not an important significance since it is well known that students will take longer on an assignment if they have performed less than the median in the past. Being in the adaptive group proved to take more time than in the non-adaptive group, but was very comparable to the control group. At the very least, it does not hurt the students to have an adaptive problem set.

Post test scores show a similar story across the knowledge levels. There were no significant effects in the adaptivity levels, and there was no interaction between the knowledge level and adaptivity level. There is a noticeable drop for students in the adaptive group. This is suggests that there wasn't a major benefit to having an adaptive section to bolster competence in the post test. Overall, the experiment is relatively inconclusive as to the effect of increased competence on student's performance.

### 2.6 Competence Study 2: External Encouragement

## Hypothesis

Increasing competence can be done through external encouragement. To emulate this in an online environment, confidence boosting prompts will be interspersed throughout the Skill Builder.

## Design

### 2.6.1 Flowchart



Figure 2.6.1 Experiment Flowchart

This experiment begins by randomly assigning a student to either an encouraging problem set or a regular problem set. The encouraging Skill Builder gives students inspiring quotes every three questions to boost morale. The standard Skill Builder simply delivers a regular Skill Builder. Once the student has finished their respective problem set, they are given a post test.

### 2.6.2 Experimental Treatment

The treatment group received external encouragement after every three questions. To keep the same requirement of answering 3 questions in a row, the encouragement 'questions' were marked as correct every time, and the skill builder exit criterion was answering 4 correct questions in a row instead of 3. This allows for students to fulfill their mastery requirement while also seeing the encouraging screens. There was an encouragement screen in the beginning that is marked right, so even students who have no trouble with the assignment and get the first three questions right will still have been exposed to the encouragement.

### 2.6.3 Control

The control group will receive no external encouragement. To maintain symmetry, the control will also answer a linear set of template problems. This should be doable since there will probably be a daily max of 10 anyway.

### 2.6.4 Problem Set Information

This experiment was built on the common core strand NS.B. 3 and was deployed for students in sixth grade. The problem set involved Adding Decimals. For brevity, just the post test is shown below; See appendix *** for full problem set.

| Problem ID: PRA6R65 | Comment on this problem |
| :---: | :---: |
| Find the sum |  |
| $0.34+7+1.9$ |  |
| Type your answer below as a number (example: 5, 3.1, $41 / 2$, or 3/2): l | $100 \%{ }^{\text {(3) }}$ |
| Submit Answer | Show answer |




Figure 2.6.2 Post Test Questions

## Results

### 2.6.5 Independence of Groups

This was a smaller study that reached 96 students from two schools. Their median prior percent correct was $80.00 \%$. The attrition rates across the groups were analyzed by performing a Chi-Square test to determine that the experiment did not cause students to drop out.

Table 2.6.1 Cross Tabulation of Encouragement Level and Finished Partitions

|  | No Encouragement | Encouragement | Total |
| ---: | :---: | :---: | :---: |
| Unfinished | 2 | 1 | 3 |
| Finished | 44 | 49 | 93 |
| Total | 46 | 50 | 96 |

Based on the data it is evident that the rates of attrition are consistent across the experimental condition. The experiment had one student quit, whereas the control group only had two students quit. Based on the size of the sample, these were shown to be insignificant. The Chi-Square test shows similar conclusions, where $\chi^{2}(1)=.44$. The significance was 0.509 , which indicates that the two groups are independent with respect to attrition rates.

### 2.6.6 Descriptive Data

Table 2.6.2 Means (SDs) by Encouragement for Four Metrics

| Encouragement | Hint Average | Attempt Average | Median Time | Post Test Average |
| :---: | :---: | :---: | :---: | :---: |
| No Encouragement <br> $(\mathrm{N}=44)$ | $.01(.03)$ | $1.06(.12)$ | $27.57(17.18)$ | $.95(.16)$ |
| Encouragement <br> $(\mathrm{N}=49)$ | $.00(.00)$ | $1.06(.11)$ | $28.11(11.17)$ | $.94(.14)$ |
| Total <br> $(\mathrm{N}=93)$ | $.01(.02)$ | $1.06(.12)$ | $27.86(14.25)$ | $.95(.15)$ |

The results show that there was relatively little overall difference between the two groups overall, and they were the same size. Further investigation will be performed to analyze effects on low and high knowledge students.
2.6.7 Analysis of Hint Average


Figure 2.6.3 Q-Q Plot by Encouragement Level of Hint Average

Due to extreme ceiling effects, there were no students in the Encouragement condition that needed a hint, and only one student in the control condition that needed a hint on one problem. This is reflected in the graphs where there is one point that is really far away from the trend line.

Table 2.6.3 ANOVA Results for Hint Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Encouragement | .00 | 1 | .00 | 1.23 | .271 | .01 |
| Knowledge | .00 | 1 | .00 | 1.23 | .271 | .01 |
| Encouragement * | .00 | 1 | .00 | 1.23 | .271 | .01 |
| Knowledge | .04 | 89 | .00 |  |  |  |
| Error |  |  |  |  |  |  |



Figure 2.6.4 Marginal Means of Hint Usage
This graph basically shows that the one student who needed a hint was in the low knowledge group. Realistically, no conclusions can be drawn from this.

### 2.6.8 Analysis of Attempt Average



Figure 2.6.5 Q-Q Plots by Encouragement for Attempt Average

Attempt average follows the line pretty closely. This indicates that both there are enough data points and that they follow a normal distribution.

Table 2.6.4 ANOVA Results for Attempt Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Encouragement | $4.82 \mathrm{E}-5$ | 1 | $4.82 \mathrm{E}-5$ | .00 | .951 | .00 |
| Knowledge | .01 | 1 | .01 | .76 | .385 | .01 |
| Encouragement * <br> Knowledge | .11 | 1 | .11 | 8.63 | .004 | .09 |
| Error | 1.11 | 89 | .01 |  |  |  |



Figure 2.6.6 Marginal Means of Attempt Average

There was a significant interaction effect between the experiment condition and knowledge level. Based on the ANOVA results, there are less attempts that are needed by the low knowledge students when they receive encouragement, whereas high knowledge students require more attempts on average when they receive encouragement.

### 2.6.9 Analysis of Median Time per Problem



Figure 2.6.7 Q-Q Plots by Encouragement of Median Time

Based on the Q-Q plots, the median time to complete a question follows an exponential curve, and the curve falls mostly on the trend line, so the data can be viewed as normal.

Table 2.6.5 ANOVA Results for Median Time

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Encouragement | 2.57 | 1 | 2.57 | .01 | .911 | .00 |
| Knowledge | 447.17 | 1 | 447.17 | 2.20 | .141 | .02 |
| Encouragement * | 181.60 | 1 | 181.60 | .89 | .347 | .01 |
| Knowledge | 18082.24 | 89 | 203.17 |  |  |  |
| Error | 90854.81 | 93 |  |  |  |  |
| Total | 18689.44 | 92 |  |  |  |  |
| Corrected Total |  |  |  |  |  |  |



Figure 2.6.8 Marginal Means of Median Time

There wasn't a significant effect for any of the partitions, but there was a similar effect between knowledge and treatment as there was as in attempt average. The low knowledge students took less time with encouragement, and the high knowledge students took more time.

### 2.6.10 Analysis of Post Test Correctness



Figure 2.6.9 Q-Q Plots by Encouragement of Post Test Average

The Post Test distributions don't really fall on the trend line, but it does still approximate a straight line, so it can be considered normal with a few outliers.

Table 2.6.6 ANOVA Results for Post Test Average

|  | SS | df | Mean Square | F | Sig. | Partial Eta Squared |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Encouragement | .00 | 1 | .00 | .10 | .755 | .00 |
| Knowledge | .02 | 1 | .02 | .67 | .417 | .01 |
| Encouragement * <br> Knowledge | .01 | 1 | .01 | .22 | .644 | .00 |
| Error | 1.99 | 89 | .02 |  |  |  |
| Total | 85.28 | 93 |  |  |  |  |
| Corrected Total | 2.02 | 92 |  |  |  |  |



Figure 2.6.10 Marginal Means of Post Test Average

Based on the graph, there were no significant effects based on the knowledge split and treatment.
The high knowledge students only lose 2 points based on receiving encouragement and the low knowledge students gain less than a point.

### 2.6.11 Discussion

Based on the results, there appears to be very little effect of the insertion of encouraging quotes within the problem set. This was consistent across the average number of hints, the median time, and the post test. There was a significant effect on the interaction between the experiment and knowledge level of the attempts used. It was shown that the low knowledge students were able to use considerably fewer attempts on average when they were encouraged. This could be that the low knowledge students actually took the time to read the encouraging quotes, and were inspired by them resulting in fewer attempts needed. The high knowledge students may have found the quotes condescending, and felt that they were incompetent, resulting in more attempts needed.

A major problem with this data set is that there were significant ceiling effects. Almost every student got the first questions right and didn't need to see more than one motivational quote. This means that the results show little meaning especially for the significant effect of attempt average. Because the encouraging quote was delivered and then the students went right in to the post test, there probably wasn't a very big influence from the quotes. Overall it seems that there is no effect one way or the other when there are inspirational quotes interspersed with the questions.

## 3. Conclusion

Although many results from the studies were not significant, they generally pointed towards the support of Self-Determination Theory. The Experiments proved to reduce the number of hints, attempts, and time to complete the Skill Builder in general. They tended to increase the post test scores of the students as well. Based on this, it appears that the motivation of a student is indeed tied to the factors of autonomy, belonging and competence.

Another interesting finding is that the experiments seemed to help the low-knowledge students much more than the high knowledge students. It seems that the students who were doing well prior to the experiments were thriving in the default environment that ASSISTments has set up. The Low-knowledge students, on the other hand, have not been doing as well. Changing the way the Skill Builders are delivered seemed to provide a different enough experience to help them overcome their prior experiences. From the studies, high-knowledge students tend to resist the changes, whereas low-knowledge students tend to embrace them. This may indicate that there are different ways of learning things which can be benefitted or hindered by presenting information in different ways.

Further studies could expand on these concepts. Many of the studies in this paper were replications of previous studies to verify their efficacy. These studies drew similar conclusions to the ones performed in the past. Further experimentation could verify whether these findings are applicable on different age groups, as well as different math subjects. It could be that different subjects in math should be treated differently, which could be determined by replication of these studies in different subjects.

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## 5. Appendices

### 5.1 Appendix A - Code to Analyze Data

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Created 43 minutes ago
[*) sortDataAdaptive.py

```
#!/usr/bin/env python
import csv
import statistics
from student import Student
#----------------------------------------------------------------------------------------
noCount = ['PRABEDGH', 'PRA5K5P', "PRA4MUZ", "PRADSHN", 'PRABESMH', 'PRABE2JV'] #questions that should not add to correctness
condition = ['PRAJN85'] #make a dictionary?
noDiagnostic = ['PRAJN85']
diagnostic = ['PRABE2JV','PRABESZK','PRABESZM','PRABEKMU']
postTest = ['PRA79', 'PRASRU', 'PRA9PED'] # post test questions
FINAL_QUESTION = 'PRA9PED'
studentData = []
priorPercents = []
schoolIds = set()
STUDENT_ID_OFFSET = 0
QUESTION_ID_OFFSET = 0
CORRECTNESS_OFFSET = 0
HINT_OFFSET = 0
ATTEMPT_OFFSET = 0
START_TIME_OFFSET = 0
END_TIME_OFFSET = 0
FEATURE_OFFSET = 0
NUM_QUESTIONS_OFFSET = 0
ROWS_PER_STUDENT = 0
PRIOR_PERCENT_OFFSET = 0
SCHOOL_ID_OFFSET = 0
#
    # ----------------------------------------- METHODS ----------------------------------------------
```

\#read data into an array
def readFile(csvName):
with open(csvName, newline='') as csvfile:
csvreader = csv.reader(csvfile, delimiter=',', quotechar='"')
return list(csvreader)
def getoffsets(data, covariate):
global STUDENT_ID_OFFSET, QUESTION_ID_OFFSET, CORRECTNESS_OFFSET, HINT_OFFSET
global ATTEMPT_OFFSET, START_TIME_OFFSET, END_TIME_OFFSET, FEATURE_OFFSET
global NUM_QUESTIONS_OFFSET, ROWS_PER_STUDENT, PRIOR_PERCENT_OFFSET, SCHOOL_ID_OFFSET
for index in range(len(data[0])):
if data[0][index] == 'features':
FEATURE_OFFSET = index
if data[0][index] == 'Problem Count':

```
NUM_QUESTIONS_OFFSET = index
    for index in range(len(covariate[0])):
    if covariate[0][index] == 'Prior Percent Correct':
        PRIOR_PERCENT_OFFSET = index
    if covariate[0][index] == 'School ID':
        SCHOOL_ID_OFFSET = index
    firstUserID = data[1][0]
    for index in range(1, len(data)):
    if data[index][0] != firstUserID:
        ROWS_PER_STUDENT = index - 1
        print('ROWS PER STUDENT: ', ROWS_PER_STUDENT)
        break
    if data[index][FEATURE_OFFSET] == 'Problem ID':
        QUESTION_ID_OFFSET = index - 1
        print('QUESTION ID OFFSET: ',QUESTION_ID_OFFSET)
    if data[index][FEATURE_OFFSET] == 'Correct':
        CORRECTNESS_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Hint Count':
        HINT_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Attempt Count':
        ATTEMPT_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Problem Start Time':
        START_TIME_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Problem End Time':
        END_TIME_OFFSET = index - 1
#determine how the question should be counted
def processQuestion(student, data, questionNumber, startRow)
    #values that determine which row/column the data is in
    correctnessRow = startRow + CORRECTNESS_OFFSET
    questionIDRow = startRow + QUESTION_ID_OFFSET
    hintRow = startRow + HINT_OFFSET
    attemptRow = startRow + ATTEMPT_OFFSET
    startTimeRow = startRow + START_TIME_OFFSET
    endTimeRow = startRow + END_TIME_OFFSET
    # firstResponseTimeRow = startRow + 21
    problemID = (data[questionIDRow][questionNumber]).replace('"', '')
    if(problemID in condition):
        student.condition = 1
    if(problemID in noDiagnostic):
        student.subgroup = 1
    if(problemID in diagnostic):
        student.subgroup = 2
    if(not(problemID in noCount)):
        if(problemID in postTest):
            student.countPostTest(data[correctnessRow][questionNumber])
        else:
            student.countCorrect(data[correctnessRow][questionNumber])
            student.countHints(data[hintRow][questionNumber])
            student.countAttempts(data[attemptRow][questionNumber])
            student.addTime(data[startTimeRow][questionNumber], data[endTimeRow][questionNumber])
    if(problemID == FINAL_QUESTION)
        student.finished = 1
    # student.countResponseTime(data[firstResponseTimeRow][questionNumber])
#return a populated student object with important data
```

```
def processEntry(studentNumber, data, covariatedata):
    student = Student()
    #gather covariate data
    student.ID = int(covariatedata[studentNumber+1][STUDENT_ID_OFFSET])
    student.setPriorPercentCorrect(covariatedata[studentNumber+1][PRIOR_PERCENT_OFFSET])
    priorPercents.append(student.priorPercentCorrect)
    schoolIds.add(covariatedata[studentNumber+1][SCHOOL_ID_OFFSET])
    startRow = studentNumber*ROWS_PER_STUDENT + 1
    offset = FEATURE_OFFSET + 1 #handle scaffolds
    questionIDRow = startRow + QUESTION_ID_OFFSET
    numQuestions = int(data[startRow][NUM_QUESTIONS_OFFSET])
    #loop through the questions and update
    print(numQuestions)
    for question in range(0, numQuestions):
        try:
            while(len(data[questionIDRow][question+offset].replace('"', '')) == 0):
                print('Empty DATA!')
                offset += 1
            processQuestion(student, data, question+offset, startRow)
        except IndexError:
            break
    return student
#-----------------------------------------------------------------------------------------------------------
data = readFile('DATA.csv')
covariate = readFile('COVARIATE.csv')
getOffsets(data, covariate)
for studentNumber in range(0, len(covariate)-1):
    student = processEntry(studentNumber, data, covariate)
    studentData.append(student)
studentData.sort()
#-------------------------------------- Write Data Out
                        ------------------------------------------------------------
def writeCSV(fileName, listOfStudents):
    with open(fileName, 'w') as csvfile:
        datawriter = csv.writer(csvfile, delimiter=',',quotechar='"', quoting=csv.QUOTE_MINIMAL)
        datawriter.writerow(['ID','High Knowledge', 'Experiment Partition', 'Group Partition', 'Finished', 'Hint Average', 'A
        for student in listOfStudents:
            datawriter.writerow(student.getRow(statistics.median(priorPercents)))
        datawriter.writerow('')
        datawriter.writerow('')
writeCSV('PSA59VC.csv', studentData)
print('Number of Schools: {}, Knowledge Split: {}'.format(len(schoolIds), statistics.median(priorPercents)))
```


## ( $0^{\text {sortDataHintChoice }}$

```
#!/usr/bin/env python
import csv
import statistics
from student import Student
#------------------------------------------ VARIABLES
```

```
noCount = ['PRABEDGH', 'PRA5K5P', "PRA4MUZ", "PRADSHN", ] #questions that should not add to correctness
condition = ['PRA5K5P'] #make a dictionary?
text = ["PRADSJC","PRADSGY","PRADSJZ","PRADSJD","PRADSHQ","PRADSKN","PRADSGX","PRADSHR","PRADSKR","PRADSKQ","PRADSJS",
"PRADSHW", "PRADSHZ", "PRADSJ6", "PRADSK6", "PRADSJF", "PRADSHH", "PRADSHE", "PRADSH9", "PRADSH3", "PRADSHN", "PRADSHP",
"PRADSH2","PRADSGZ", "PRADSK2", "PRADSH6", "PRADSHF", "PRADSJY", "PRADSK8", "PRADSJM", "PRADSK7", "PRADSHV", "PRADSJ4",
"PRADSHY","PRADSJT", "PRADSG4", "PRADSKT", "PRADSJP", "PRADSJN", "PRADSKH", "PRADSJ5", "PRADSKP", "PRADSJA", "PRADSJE",
"PRADSH5", "PRADSG7", "PRADSHC", "PRADSKS", "PRADSKJ", "PRADSKV", "PRADSK5", "PRADSJ7", "PRADSHB", "PRADSKZ", "PRADSKW",
"PRADSK9", "PRADSH8", "PRADSKB", "PRADSHG", "PRADSKD", "PRADSHJ", "PRADSHD", "PRADSMK", "PRADSKG", "PRADSMP", "PRADSJU",
"PRADSJR", "PRADSH7", "PRADSKK", "PRADSJ3", "PRADSMW", "PRADSJ2", "PRADSKU", "PRADSMG", "PRADSME", "PRADSMC", "PRABEB9Z",
"PRADSMU", "PRADSMT", "PRADSJB", "PRADSH4", "PRADSKE", "PRADSMN", "PRADSHA", "PRADSJ8", "PRADSKF", "PRADSJK", "PRADSHU",
"PRADSKY", "PRADSHX", "PRADSKM", "PRADSJW", "PRADSKC", "PRADSJG", "PRADSKX", "PRADSJH", "PRADSJ9", "PRADSHT", "PRADSHM",
"PRADSJQ", "PRADSK4", "PRADSG8", "PRADSKA", "PRADSJX", "PRADSJV", "PRADSMM", "PRADSHK", "PRADSK3", "PRADSJJ"]
video = ["PRABEB92","PRABEB93","PRABEB94","PRABEB95","PRABEB96","PRABEB97","PRABEB98","PRABEB99","PRABEB9Z","PRABECAA"]
postTest = ['PRAQZAX','PRAQZA2','PRAQZAW' ] # post test questions
FINAL_QUESTION = 'PRAQZA2'
studentData = []
priorPercents = []
schoolIds = set()
STUDENT_ID_OFFSET = 0
QUESTION_ID_OFFSET = 0
CORRECTNESS_OFFSET = 0
HINT_OFFSET = 0
ATTEMPT_OFFSET = 0
START_TIME_OFFSET = 0
END_TIME_OFFSET = 0
FEATURE_OFFSET = 0
NUM QUESTIONS OFFSET = 0
ROWS_PER_STUDENT = 0
PRIOR_PERCENT_OFFSET = 0
SCHOOL_ID_OFFSET = 0
```



```
#read data into an array
def readFile(csvName):
    with open(csvName, newline='') as csvfile:
        csvreader = csv.reader(csvfile, delimiter=',', quotechar='"')
        return list(csvreader)
def getOffsets(data, covariate):
    global STUDENT_ID_OFFSET, QUESTION_ID_OFFSET, CORRECTNESS_OFFSET, HINT_OFFSET
    global ATTEMPT_OFFSET, START_TIME_OFFSET, END_TIME_OFFSET, FEATURE_OFFSET
    global NUM_QUESTIONS_OFFSET, ROWS_PER_STUDENT, PRIOR_PERCENT_OFFSET, SCHOOL_ID_OFFSET
    for index in range(len(data[0])):
        if data[0][index] == 'features':
            FEATURE_OFFSET = index
        if data[0][index] == 'Problem Count':
                NUM_QUESTIONS_OFFSET = index
    for index in range(len(covariate[0])):
        if covariate[0][index] == 'Prior Percent Correct':
            PRIOR_PERCENT_OFFSET = index
        if covariate[0][index] == 'School ID':
            SCHOOL_ID_OFFSET = index
```

```
*
7
```

firstUserID = data[1][0]

```
firstUserID = data[1][0]
for index in range(1, len(data)):
for index in range(1, len(data)):
    if data[index][0] != firstUserID:
    if data[index][0] != firstUserID:
            ROWS_PER_STUDENT = index - 1
            ROWS_PER_STUDENT = index - 1
            print('ROWS PER STUDENT: ', ROWS_PER_STUDENT)
            print('ROWS PER STUDENT: ', ROWS_PER_STUDENT)
            break
            break
    if data[index][FEATURE_OFFSET] == 'Problem ID':
    if data[index][FEATURE_OFFSET] == 'Problem ID':
            QUESTION_ID_OFFSET = index - 1
            QUESTION_ID_OFFSET = index - 1
            print('QUESTION ID OFFSET: ',QUESTION_ID_OFFSET)
            print('QUESTION ID OFFSET: ',QUESTION_ID_OFFSET)
    if data[index][FEATURE_OFFSET] == 'Correct':
    if data[index][FEATURE_OFFSET] == 'Correct':
            CORRECTNESS_OFFSET = index - 1
            CORRECTNESS_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Hint Count':
    if data[index][FEATURE_OFFSET] == 'Hint Count':
            HINT_OFFSET = index - 1
            HINT_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Attempt Count':
    if data[index][FEATURE_OFFSET] == 'Attempt Count':
            ATTEMPT_OFFSET = index - 1
            ATTEMPT_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Problem Start Time':
    if data[index][FEATURE_OFFSET] == 'Problem Start Time':
        START_TIME_OFFSET = index - 1
        START_TIME_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Problem End Time':
    if data[index][FEATURE_OFFSET] == 'Problem End Time':
        END_TIME_OFFSET = index - 1
        END_TIME_OFFSET = index - 1
#determine how the question should be counted
#determine how the question should be counted
def processQuestion(student, data, questionNumber, startRow):
def processQuestion(student, data, questionNumber, startRow):
    #values that determine which row/column the data is in
    #values that determine which row/column the data is in
    correctnessRow = startRow + CORRECTNESS_OFFSET
    correctnessRow = startRow + CORRECTNESS_OFFSET
    questionIDRow = startRow + QUESTION_ID_OFFSET
    questionIDRow = startRow + QUESTION_ID_OFFSET
    hintRow = startRow + HINT_OFFSET
    hintRow = startRow + HINT_OFFSET
    attemptRow = startRow + ATTEMPT_OFFSET
    attemptRow = startRow + ATTEMPT_OFFSET
    startTimeRow = startRow + START_TIME_OFFSET
    startTimeRow = startRow + START_TIME_OFFSET
    endTimeRow = startRow + END_TIME_OFFSET
    endTimeRow = startRow + END_TIME_OFFSET
    # firstResponseTimeRow = startRow + 21
    # firstResponseTimeRow = startRow + 21
    problemID = (data[questionIDRow][questionNumber]).replace('"', '')
    problemID = (data[questionIDRow][questionNumber]).replace('"', '')
    if(problemID in condition):
    if(problemID in condition):
        student.condition = 1
        student.condition = 1
    if(problemID in text):
    if(problemID in text):
        student.subgroup = 1
        student.subgroup = 1
    if(problemID in video):
    if(problemID in video):
        student.subgroup = 2
        student.subgroup = 2
        if(not(problemID in noCount)):
        if(not(problemID in noCount)):
            if(problemID in postTest):
            if(problemID in postTest):
            student.countPostTest(data[correctnessRow][questionNumber])
            student.countPostTest(data[correctnessRow][questionNumber])
        else:
        else:
            student.countCorrect(data[correctnessRow][questionNumber])
            student.countCorrect(data[correctnessRow][questionNumber])
            student.countHints(data[hintRow][questionNumber])
            student.countHints(data[hintRow][questionNumber])
            student.countAttempts(data[attemptRow][questionNumber])
            student.countAttempts(data[attemptRow][questionNumber])
            student.addTime(data[startTimeRow][questionNumber], data[endTimeRow][questionNumber])
            student.addTime(data[startTimeRow][questionNumber], data[endTimeRow][questionNumber])
    if(problemID == FINAL_QUESTION):
    if(problemID == FINAL_QUESTION):
        student.finished = 1
        student.finished = 1
        if(problemID == 'PRA4MUZ' and data[correctnessRow][questionNumber] == '0'):
        if(problemID == 'PRA4MUZ' and data[correctnessRow][questionNumber] == '0'):
        student.condition = -999
        student.condition = -999
    # student.countResponseTime(data[firstResponseTimeRow][questionNumber])
    # student.countResponseTime(data[firstResponseTimeRow][questionNumber])
#return a populated student object with important data
#return a populated student object with important data
def processEntry(studentNumber, data, covariatedata):
def processEntry(studentNumber, data, covariatedata):
    student = Student()
    student = Student()
    #gather covariate data
```

    #gather covariate data
    ```
```

        student.ID = int(covariatedata[studentNumber+1][STUDENT_ID_OFFSET])
        student.setPriorPercentCorrect(covariatedata[studentNumber+1][PRIOR_PERCENT_OFFSET])
        priorPercents.append(student.priorPercentCorrect)
        schoolIds.add(covariatedata[studentNumber+1][SCHOOL_ID_OFFSET])
    startRow = studentNumber*ROWS_PER_STUDENT + 1
    offset = FEATURE_OFFSET + 1 #handle scaffolds
    questionIDRow = startRow + QUESTION_ID_OFFSET
    numQuestions = int(data[startRow][NUM_QUESTIONS_OFFSET])
    #loop through the questions and update
    print(numQuestions)
    for question in range(0, numQuestions):
        try:
            while(len(data[questionIDRow][question+offset].replace('"', '')) == 0):
            print('Empty DATA!')
            offset += 1
        processQuestion(student, data, question+offset, startRow)
        except IndexError:
            break
    return student
    \#-------------------------------------------- Main Method

```
\(\qquad\)
```

data = readFile('DATA.csv')
covariate = readFile('COVARIATE.csv')
getOffsets(data, covariate)
for studentNumber in range(0, len(covariate)-1):
student = processEntry(studentNumber, data, covariate)
studentData.append(student)
studentData.sort()
\#-------------------------------------- Write Data Out
-----------------------------------------------------------------
def writeCSV(fileName, listOfStudents):
with open(fileName, 'w') as csvfile:
datawriter = csv.writer(csvfile, delimiter=',',quotechar='"', quoting=csv.QUOTE_MINIMAL)
datawriter.writerow(['ID','High Knowledge', 'Experiment Partition', 'Group Partition', 'Finished', 'Hint Average', 'A1
for student in listOfStudents:
datawriter.writerow(student.getRow(statistics.median(priorPercents)))
datawriter.writerow('')
datawriter.writerow('')
writeCSV('PSA59VB.csv', studentData)
print('Number of Schools: {}, Knowledge Split: {}'.format(len(schoolIds), statistics.median(priorPercents)))

```
sortDataHumanTutoring.py

```

noCount = ["PRA4MUZ", "PRABESMF"] \#questions that should not add to correctness
condition = [] \#make a dictionary?
narrated = ["PRABEEJ9","PRABEEKA","PRABEEKB","PRABEEKC", "PRABEEKD", "PRABEEKE", "PRABEEKF"]
human = ["PRABEEJZ","PRABEEJ2","PRABEEJ3","PRABEEJ4","PRABEEJ5","PRABEEJ6","PRABEEJ7","PRABEEJ8"]
postTest = ["PRABESYJ", "PRABESYG", "PRABESYK", "PRABESYH"] \# post test questions
FINAL QUESTION = 'PRABESYJ'
studentData = []
priorPercents = []
schoolIds = set()
STUDENT_ID_OFFSET = 0
QUESTION_ID_OFFSET = 0
CORRECTNESS_OFFSET = 0
HINT_OFFSET = 0
ATTEMPT_OFFSET = 0
START TIME OFFSET = 0
END TIME OFFSET = 0
FEATURE_OFFSET = 0
NUM_QUESTIONS_OFFSET = 0
ROWS_PER_STUDENT = 0
PRIOR_PERCENT_OFFSET = 0
SCHOOL ID OFFSET = 0

# ------------------------------------- METHODS ---------------------------------------------

```
\#read data into an array
def readFile(csvName):
    with open(csvName, newline='') as csvfile:
        csvreader = csv.reader(csvfile, delimiter=',', quotechar='"')
        return list(csvreader)
def getoffsets(data, covariate):
    global STUDENT_ID_OFFSET, QUESTION_ID_OFFSET, CORRECTNESS_OFFSET, HINT_OFFSET
    global ATTEMPT_OFFSET, START_TIME_OFFSET, END_TIME_OFFSET, FEATURE_OFFSET
    global NUM_QUESTIONS_OFFSET, ROWS_PER_STUDENT, PRIOR_PERCENT_OFFSET, SCHOOL_ID_OFFSET
    for index in range(len(data[0])):
        if data[0][index] == 'features':
                FEATURE_OFFSET = index
        if data[0][index] == 'Problem Count':
                NUM_QUESTIONS_OFFSET = index
    for index in range(len(covariate[0]))
        if covariate[0][index] == 'Prior Percent Correct':
                PRIOR_PERCENT_OFFSET = index
        if covariate[0][index] == 'School ID':
                SCHOOL_ID_OFFSET = index
    firstUserID = data[1][0]
    for index in range(1, len(data)):
        if data[index][0] != firstUserID:
            ROWS_PER_STUDENT = index - 1
            print('ROWS PER STUDENT: ', ROWS_PER_STUDENT)
            break
```

    if data[index][FEATURE_OFFSET] == 'Problem ID':
        QUESTION_ID_OFFSET = index - 1
        print('QUESTION ID OFFSET: ',QUESTION_ID_OFFSET)
    if data[index][FEATURE_OFFSET] == 'Correct':
        CORRECTNESS_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Hint Count':
        HINT_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Attempt Count':
        ATTEMPT_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Problem Start Time':
        START_TIME_OFFSET = index - 1
    if data[index][FEATURE_OFFSET] == 'Problem End Time':
        END_TIME_OFFSET = index - 1
    \#determine how the question should be counted
def processQuestion(student, data, questionNumber, startRow):
\#values that determine which row/column the data is in
correctnessRow = startRow + CORRECTNESS_OFFSET
questionIDRow = startRow + QUESTION_ID_OFFSET
hintRow = startRow + HINT_OFFSET
attemptRow = startRow + ATTEMPT_OFFSET
startTimeRow = startRow + START_TIME_OFFSET
endTimeRow = startRow + END_TIME_OFFSET
\# firstResponseTimeRow = startRow + 21
problemID = (data[questionIDRow][questionNumber]).replace('"', '')
if(problemID in condition):
student.condition = 1
if(student.subgroup == 0):
student.subgroup = 1
if(problemID in narrated):
student.subgroup = 2
if(problemID in human):
student.subgroup = 3
if(not(problemID in noCount)):
if(problemID in postTest):
student.countPostTest(data[correctnessRow][questionNumber])
else:
student.countCorrect(data[correctnessRow][questionNumber])
student.countHints(data[hintRow][questionNumber])
student.countAttempts(data[attemptRow][questionNumber])
student.addTime(data[startTimeRow][questionNumber], data[endTimeRow][questionNumber])
if(problemID == FINAL_QUESTION):
student.finished = 1
if(problemID == 'PRA4MUZ' and data[correctnessRow][questionNumber] == '0'):
student.condition = -999
\# student.countResponseTime(data[firstResponseTimeRow][questionNumber])
\#return a populated student object with important data
def processEntry(studentNumber, data, covariatedata):
student = Student()
\#gather covariate data
student.ID = int(covariatedata[studentNumber+1][STUDENT_ID_OFFSET])
student.setPriorPercentCorrect(covariatedata[studentNumber+1][PRIOR_PERCENT_OFFSET])
priorPercents.append(student.priorPercentCorrect)
schoolIds.add(covariatedata[studentNumber+1][SCHOOL_ID_OFFSET])
startRow = studentNumber*ROWS_PER_STUDENT + 1
offset = FEATURE_OFFSET + 1 \#handle scaffolds

```
```

        questionIDRow = startRow + QUESTION_ID_OFFSET
        numQuestions = int(data[startRow][NUM_QUESTIONS_OFFSET])
        #loop through the questions and update
        for question in range(0, numQuestions):
            try:
            while(len(data[questionIDRow][question+offset].replace('"', '')) == 0):
                print('Empty DATA!')
                offset += 1
            processQuestion(student, data, question+offset, startRow)
        except IndexError:
            break
    return student
    \#------------------------------------------ Main Method -
-------------------------------------------------------------------
data = readFile('DATA2.csv')
covariate = readFile('COVARIATE2.csv')
getOffsets(data, covariate)
for studentNumber in range(0, len(covariate)-1):
student = processEntry(studentNumber, data, covariate)
studentData.append(student)
studentData.sort()
\#-------------------------------------- Write Data Out
--------------------------------------------------------------
def writeCSV(fileName, listOfStudents):
with open(fileName, 'w') as csvfile:
datawriter = csv.writer(csvfile, delimiter=',',quotechar='"', quoting=csv.QUOTE_MINIMAL)
datawriter.writerow(['ID','High Knowledge', 'Experiment Partition', 'Group Partition', 'Finished', 'Hint Average', 'A
for student in listOfStudents:
datawriter.writerow(student.getRow(statistics.median(priorPercents)))
datawriter.writerow('')
datawriter.writerow('')
writeCSV('PSA6DUN.csv', studentData)
print('Number of Schools: {}, Knowledge Split: {}'.format(len(schoolIds), statistics.median(priorPercents)))

```
© sortDataMasteryChoice.py
```

\#!/usr/bin/env python
import csv
import statistics
from student import Student
\#------------------------------------------ VARIABLES
noCount = ['PRABESZG', 'PRABEBUC', 'PRABECAC', 'PRABET7F'] \#questions that should not add to correctness
condition = ['PRABEBUC'] \#make a dictionary?
threeCorrect = ['PRABFB7','PRABFB2','PRABFB6','PRABFB3','PRABFB8','PRABFBY','PRABFB4','PRABFBZ', 'PRABFB5','PRABFDZ','PRABFDR','F
'PRABFC2','PRABFCZ','PRABFCX','PRABFEA','PRABFEQ','PRABFDK','PRABFDA','PRABFDQ','PRABFD9','PRABFC6','PRABFDN','F
fourCorrect = ['PRABFCC','PRABFEE','PRABFD8','PRABFCT','PRABFDS','PRABFD2','PRABFCF','PRABFCN','PRABFCD','PRABFEM','PRABFEH','PF

```
```

            'PRABFCQ','PRABFDC','PRABFEN','PRABFEB','PRABFC9','PRABFEF','PRABFEK','PRABFC4','PRABFCM','PRABFCY','PRABFES','F
    fiveCorrect = ['PRABFDB','PRABFCS','PRABFEC','PRABFCE','PRABFCW','PRABFCH','PRABFDX','PRABFDH','PRABFC3','PRABFD3','PRABFDG','PF
'PRABFDV','PRABFDD','PRABFEG','PRABFCK','PRABFD5','PRABFCB','PRABFC7','PRABFEU','PRABFDE','PRABFC5','PRABFD7','F
postTest = ['PRABATEU', 'PRABEUH6', 'PRABAWP9', 'PRA7PWK' ] \# post test questions
FINAL_QUESTION = 'PRABAWP9'
studentData = []
priorPercents = []
schoolIds = set()
STUDENT_ID_OFFSET = 0
QUESTION_ID_OFFSET = 0
CORRECTNESS_OFFSET = 0
HINT_OFFSET = 0
ATTEMPT_OFFSET = 0
START TIME OFFSET = 0
END TIME OFFSET = 0
FEATURE_OFFSET = 0
NUM_QUESTIONS_OFFSET = 0
ROWS_PER_STUDENT = 0
PRIOR_PERCENT_OFFSET = 0
SCHOOL ID OFFSET = 0

# ------------------------------------- METHODS ---------------------------------------------

```
\#read data into an array
def readFile(csvName):
    with open(csvName, newline='') as csvfile:
        csvreader = csv.reader(csvfile, delimiter=',', quotechar='"')
        return list(csvreader)
def getOffsets(data, covariate):
    global STUDENT_ID_OFFSET, QUESTION_ID_OFFSET, CORRECTNESS_OFFSET, HINT_OFFSET
    global ATTEMPT_OFFSET, START_TIME_OFFSET, END_TIME_OFFSET, FEATURE_OFFSET
    global NUM_QUESTIONS_OFFSET, ROWS_PER_STUDENT, PRIOR_PERCENT_OFFSET, SCHOOL_ID_OFFSET
    for index in range(len(data[0])):
        if data[0][index] == 'features':
                FEATURE_OFFSET = index
        if data[0][index] == 'Problem Count':
                NUM_QUESTIONS_OFFSET = index
    for index in range(len(covariate[0])):
        if covariate[0][index] == 'Prior Percent Correct':
                PRIOR_PERCENT_OFFSET = index
        if covariate[0][index] == 'School ID':
                SCHOOL ID OFFSET = index
    firstUserID = data[1][0]
    for index in range(1, len(data)):
        if data[index][0] != firstUserID:
            ROWS_PER_STUDENT = index - 1
            print('ROWS PER STUDENT: ', ROWS_PER_STUDENT)
            break
        if data[index][FEATURE_OFFSET] == 'Problem ID'
            QUESTION_ID_OFFSET = index - 1
            print('QUESTION ID OFFSET: ',QUESTION_ID_OFFSET)
```

if data[index][FEATURE_OFFSET] == 'Correct':
CORRECTNESS_OFFSET = index - 1
if data[index][FEATURE_OFFSET] == 'Hint Count':
HINT OFFSET = index - 1
if data[index][FEATURE_OFFSET] == 'Attempt Count':
ATTEMPT_OFFSET = index - 1
if data[index][FEATURE_OFFSET] == 'Problem Start Time':
START_TIME_OFFSET = index - 1
if data[index][FEATURE_OFFSET] == 'Problem End Time':
END_TIME_OFFSET = index - 1
\#determine how the question should be counted
def processQuestion(student, data, questionNumber, startRow)
\#values that determine which row/column the data is in
correctnessRow = startRow + CORRECTNESS_OFFSET
questionIDRow = startRow + QUESTION_ID_OFFSET
hintRow = startRow + HINT_OFFSET
attemptRow = startRow + ATTEMPT_OFFSET
startTimeRow = startRow + START_TIME_OFFSET
endTimeRow = startRow + END_TIME_OFFSET
\# firstResponseTimeRow = startRow + 21
problemID = (data[questionIDRow][questionNumber]).replace('"', '')
if(problemID in condition):
student.condition = 1
if(problemID in threeCorrect)
student.subgroup = 1
if(problemID in fourCorrect):
student.subgroup = 2
if(problemID in fiveCorrect):
student.subgroup = 3
if(not(problemID in noCount)):
if(problemID in postTest)
student.countPostTest(data[correctnessRow][questionNumber])
else:
student.countCorrect(data[correctnessRow][questionNumber])
student.countHints(data[hintRow][questionNumber])
student.countAttempts(data[attemptRow][questionNumber])
student.addTime(data[startTimeRow][questionNumber], data[endTimeRow][questionNumber])
if(problemID == FINAL_QUESTION):
student.finished = 1
\# student.countResponseTime(data[firstResponseTimeRow][questionNumber])
\#return a populated student object with important data
def processEntry(studentNumber, data, covariatedata):
student = Student()
\#gather covariate data
student.ID = int(covariatedata[studentNumber+1][STUDENT_ID_OFFSET])
student.setPriorPercentCorrect(covariatedata[studentNumber+1][PRIOR_PERCENT_OFFSET])
priorPercents.append(student.priorPercentCorrect)
schoolIds.add(covariatedata[studentNumber+1][SCHOOL_ID_OFFSET])
startRow = studentNumber*ROWS_PER_STUDENT + 1
offset = FEATURE_OFFSET + 1 \#handle scaffolds
questionIDRow = startRow + QUESTION_ID_OFFSET
numQuestions = int(data[startRow][QUESTION_ID_OFFSET])
\#loop through the questions and update
for question in range(0, numQuestions):
while(len(data[questionIDRow][question+offset].replace('"', '')) == 0):
\#print('Empty DATA!')

```
```

                offset += 1
    processQuestion(student, data, question+offset, startRow)
    return student
    \#--------------------------------------------- Main Method

```
\(\qquad\)
```

data = readFile('DATA2.csv')
covariate = readFile('COVARIATE2.csv')
getOffsets(data, covariate)
for studentNumber in range(0, len(covariate)-1):
student = processEntry(studentNumber, data, covariate)
studentData.append(student)
studentData.sort()
\#---------------------------------------Write Data Out
----------------------------------------------------------------
def writeCSV(fileName, listOfStudents):
with open(fileName, 'w') as csvfile:
datawriter = csv.writer(csvfile, delimiter=',',quotechar='"', quoting=csv.QUOTE_MINIMAL)
datawriter.writerow(['ID','High Knowledge', 'Experiment Partition', 'Group Partition', 'Finished', 'Hint Average', 'A1
for student in listOfStudents:
datawriter.writerow(student.getRow(statistics.median(priorPercents)))
datawriter.writerow('')
datawriter.writerow('')
writeCSV('PSA59TP.csv', studentData)
print('Number of Schools: {}, Knowledge Split: {}'.format(len(schoolIds), statistics.median(priorPercents)))

```
@ student.py
```

\#!/usr/bin/env python
from math import log
from statistics import median
class Student:
def __init__(self):
self.ID = 0 \#ID number
self.priorPercentCorrect = 0 \#the prior Percent Correct (from covariate file)
self.condition = 0 \# which condition the student is in (control = 0 experiment = 1)
self.subgroup = 0 \# which subgroup the student is in
self.problemSetCorrect = 0 \#total score for the whole problem set
self.problemSetCount = 0 \# number of questions answered in problem set
self.postTestCorrect = 0 \# total score for post test
self.postTestCount = 0 \# number of post test questions answered
self.hintCount = 0
self.attemptCount = 0
self.timesToComplete = []
self.firstResponseAverage = 0 \#average for the first response time
self.finished = 0 \# 0 if unfinished, 1 if finished
def __lt__(self, other):
selfVal = self.calcGroup() + self.priorPercentCorrect + self.finished * 100
otherVal = other.calcGroup() + other.priorPercentCorrect + other.finished * 100
return selfVal < otherval

```
```

def setPriorPercentCorrect(self, value):
try:
self.priorPercentCorrect = float(value)
except ValueError:
self.priorPercentCorrect = 0
def calcGroup(self):
return self.condition * 1000 + self.subgroup * 10
def countPostTest(self, value):
try:
self.postTestCount += 1
self.postTestCorrect += float(value)
except ValueError
pass
def countCorrect(self, value):
try:
self.problemSetCount += 1
self.problemSetCorrect += float(value)
except ValueError:
pass
def countResponseTime(self, value):
try:
self.firstResponseAverage += float(value)
except ValueError
pass
def countHints(self, value):
try:
self.hintCount += float(value)
except ValueError
pass
def countAttempts(self, value):
try:
self.attemptCount += float(value)
except ValueError
pass
def addTime(self, start, end):
try:
start = start.replace('"', '')
end = end.replace('"', '')
startDate, startTime = start.split()
endDate, endTime = end.split()
if startDate == endDate
sH,sM,sS = startTime.split(':')
eH,eM,eS = endTime.split(':')
end = 3600*float(eH) + 60*float(eM) + float(eS)
start = 3600*float(sH) + 60*float(sM) + float(sS)
self.timesToComplete.append(end - start)
\# print(self.timesToComplete)
except ValueError:
pass
def getRow(self, med)
try:
hintAverage = self.hintCount / self.problemSetCount

```
attemptAverage = self.attemptCount / self.problemSetCount
postTestAverage \(=\) self.postTestCorrect / self.postTestCount
except ZeroDivisionError:
postTestAverage \(=-1\)
hintAverage = -1
attemptAverage \(=-1\)
try:
time \(=\) median(self.timesToComplete) except Exception as e:
time \(=-1\)
5.2 Appendix B - ASSISTments Study Questions

\section*{Problem Set "Writing a Linear Equation from Slope and y-Intercept 8.F.B.4" id:[PSAP8V]}

\section*{Select All}
1) Problem \#PRADSJC "PRADSJC - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3 "
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 8
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.


\section*{PSAP8V 2.1}
- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=8\) because the y -intercept is 8

\section*{PSAP8V 2.2}

- The slope is 0 , so the equation is \(\mathrm{y}=8\)

Type in 8

\section*{PSAP8V 2.3}
2) Problem \#PRADSGY "PRADSGY - Algebra1 Equation from Slope and Y-intercept Mastery Learning"

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 5/5

Y-intercept of the equation: 2

Use \(x\) as the independent variable.
Algebraic Expression:
v \(5 / 5 x+2\)
\(\sqrt{1 x}+2\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.


\section*{PSAP8V 3.1}

- We know that \(\mathrm{m}=5 / 5\) because the slope is \(5 / 5\)

We know that \(\mathrm{b}=2 \quad\) because the y -intercept is 2

\section*{PSAP8V 3.2}

- The equation is \(y=5 / 5 x+2\)

Type in \(5 / 5 x+2\)

\section*{PSAP8V 3.3}

3) Problem \#PRADSJZ "PRADSJZ - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6" Write a linear equation for the line with slope \(=10 / 8\) going through the point: \((0,2)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)

Use \(x\) as the independent variable.

\section*{Algebraic Expression:}
\(10 / 8 x+2\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=10 / 8\) because the slope is \(10 / 8\)

We know that \(\mathrm{b}=2\) because \((0,2)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=10 / 8 \mathrm{x}+2\)

Type in \(10 / 8 \mathrm{x}+2\)

\section*{4) Problem \#PRADSJD "PRADSJD - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery}

\section*{Learning 3 "}

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 5
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The slope is 0 , so the equation is \(\mathrm{y}=5\)

Type in 5
5) Problem \#PRADSHQ "PRADSHQ - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 8\)

Y-intercept of the equation: 9
Use \(x\) as the independent variable.
Algebraic Expression:
- \(-5 / 8 x+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 8\) because the slope is \(-5 / 8\)

We know that \(\mathrm{b}=9\) because the y -intercept is 9
- The equation is \(\mathrm{y}=-5 / 8 \mathrm{x}+9\)

Type in \(-5 / 8 \mathrm{x}+9\)
6) Problem \#PRADSKN "PRADSKN - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-8 / 10\) going through the point: \((0,5)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-8 / 10 x+5}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=-8 / 10\) because the slope is \(-8 / 10\)

We know that \(b=5\) because \((0,5)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=-8 / 10 x+5\)

Type in \(-8 / 10 x+5\)
7) Problem \#PRADSGX "PRADSGX - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 6/8
Y-intercept of the equation: 7
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{6 / 8 x}+7\)
\(\sqrt{ } 0.75 \mathrm{x}+7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=6 / 8\) because the slope is \(6 / 8\)

We know that \(\mathrm{b}=7 \quad\) because the y -intercept is 7
- The equation is \(y=6 / 8 x+7\)

Type in \(6 / 8 x+7\)

\section*{8) Problem \#PRADSHR "PRADSHR - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 2"
nttp: Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-1 / 10\)
Y-intercept of the equation: 2
Use x as the independent variable.

\section*{Algebraic Expression:}
- \(-1 / 10 x+2\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-1 / 10\) because the slope is \(-1 / 10\)

We know that \(\mathrm{b}=2\) because the y -intercept is 2
- The equation is \(\mathrm{y}=-1 / 10 \mathrm{x}+2\)

Type in \(-1 / 10 x+2\)
9) Problem \#PRADSKR "PRADSKR - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-6 / 4\) going through the point: \((0,4)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{ }-6 / 4 \mathrm{x}+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-6 / 4\) because the slope is \(-6 / 4\)

We know that \(\mathrm{b}=4\) because \((0,4)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-6 / 4 x+4\)

Type in \(-6 / 4 x+4\)
10) Problem \#PRADSKQ "PRADSKQ - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-3 / 6\) going through the point: \((0,3)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-3 / 6 x}+3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-3 / 6\) because the slope is \(-3 / 6\)

We know that \(\mathrm{b}=3\) because \((0,3)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-3 / 6 \mathrm{x}+3\)

Type in \(-3 / 6 x+3\)
11) Problem \#PRADSJS "PRADSJS - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery

\section*{Learning 3"}

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 1
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=1\) because the y -intercept is 1
- The slope is 0 , so the equation is \(\mathrm{y}=1\)

Type in 1
12) Problem \#PRADSHW "PRADSHW - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 7\)
Y-intercept of the equation: 3
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-5 / 7 x}+3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 7\) because the slope is \(-5 / 7\)

We know that \(\mathrm{b}=3\) because the y -intercept is 3
- The equation is \(\mathrm{y}=-5 / 7 \mathrm{x}+3\)

Type in \(-5 / 7 \mathrm{x}+3\)

\section*{13) Problem \#PRADSHZ "PRADSHZ - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-10 / 4\)
Y-intercept of the equation: 6
Use x as the independent variable.
Algebraic Expression:
- \(-10 / 4 \mathrm{x}+6\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-10 / 4\) because the slope is \(-10 / 4\)

We know that \(\mathrm{b}=6\) because the y -intercept is 6
- The equation is \(\mathrm{y}=-10 / 4 \mathrm{x}+6\)

Type in \(-10 / 4 x+6\)
14) Problem \#PRADSJ6 "PRADSJ6 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=5 / 7\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{5 / 7 x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=5 / 7\) because the slope is \(5 / 7\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=5 / 7 \mathrm{x}+8\)

Type in \(5 / 7 x+8\)
15) Problem \#PRADSK6 "PRADSK6 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-3 / 2\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.

\section*{Algebraic Expression:}
v \(-3 / 2 x+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-3 / 2\) because the slope is \(-3 / 2\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-3 / 2 \mathrm{x}+8\)

Type in \(-3 / 2 x+8\)
16) Problem \#PRADSJF "PRADSJF - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 8
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=8\) because the y -intercept is 8
- The slope is 0 , so the equation is \(\mathrm{y}=8\)

Type in 8
17) Problem \#PRADSHH "PRADSHH - Algebra1 Equation from Slope and Y-intercept Mastery Learning"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 3/7
Y-intercept of the equation: 5
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{3 / 7 x+5}\)
\(\sqrt{ } 0.428571428571429 \mathrm{x}+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=3 / 7\) because the slope is \(3 / 7\)

We know that \(\mathrm{b}=5 \quad\) because the y -intercept is 5
- The equation is \(y=3 / 7 x+5\)

Type in \(3 / 7 x+5\)
18) Problem \#PRADSHE "PRADSHE - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation: http:

Slope of the equation: \(1 / 5\)
Y-intercept of the equation: 2
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{1 / 5 x+2}\)
\(\sqrt{ } 0.2 \mathrm{x}+2\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=1 / 5\) because the slope is \(1 / 5\)

We know that \(\mathrm{b}=2 \quad\) because the y -intercept is 2
- The equation is \(y=1 / 5 x+2\)

Type in \(1 / 5 \mathrm{x}+2\)

\section*{19) Problem \#PRADSH9 "PRADSH9 - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 2"
nttp: Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-1 / 9\)
Y-intercept of the equation: 5
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{-1 / 9 \mathrm{x}+5}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-1 / 9\) because the slope is \(-1 / 9\)

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The equation is \(\mathrm{y}=-1 / 9 \mathrm{x}+5\)

Type in \(-1 / 9 x+5\)
20) Problem \#PRADSH3 "PRADSH3 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: -10/2
Y-intercept of the equation: 4
Use x as the independent variable.
Algebraic Expression:
- \(-10 / 2 \mathrm{x}+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-10 / 2\) because the slope is \(-10 / 2\)

We know that \(\mathrm{b}=4\) because the y -intercept is 4
- The equation is \(\mathrm{y}=-10 / 2 \mathrm{x}+4\)

Type in -10/2x +4
21) Problem \#PRADSHN "PRADSHN - Algebra1 Equation from Slope and Y-intercept Mastery Learning"

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 7/6
Y-intercept of the equation: 4
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{7 / 6 x+4}\)
\(1.16666666666667 \mathrm{x}+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=7 / 6\) because the slope is \(7 / 6\)

We know that \(\mathrm{b}=4 \quad\) because the y -intercept is 4
- The equation is \(y=7 / 6 x+4\)

Type in \(7 / 6 \mathrm{x}+4\)
22) Problem \#PRADSHP "PRADSHP - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation: http:

Slope of the equation: 4/3
Y-intercept of the equation: 8
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{4 / 3 x+8}\)
\(\sqrt{ } 1.33333333333333 \mathrm{x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=4 / 3\) because the slope is \(4 / 3\)

We know that \(\mathrm{b}=8 \quad\) because the y -intercept is 8
- The equation is \(y=4 / 3 x+8\)

Type in \(4 / 3 \mathrm{x}+8\)
23) Problem \#PRADSH2 "PRADSH2 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
nttp: Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-3 / 2\)
Y-intercept of the equation: 9
Use x as the independent variable.

\section*{Algebraic Expression:}
\[
\sqrt{-3 / 2 x+9}
\]

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-3 / 2\) because the slope is \(-3 / 2\)

We know that \(\mathrm{b}=9\) because the y -intercept is 9
- The equation is \(\mathrm{y}=-3 / 2 \mathrm{x}+9\)

Type in \(-3 / 2 x+9\)
24) Problem \#PRADSGZ "PRADSGZ - Algebra1 Equation from Slope and Y-intercept Mastery Learning"

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(3 / 2\)
Y-intercept of the equation: 10
Use x as the independent variable.
Algebraic Expression:
v \(3 / 2 \mathrm{x}+10\)
\(\sqrt{ } 1.5 \mathrm{x}+10\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=3 / 2\) because the slope is \(3 / 2\)

We know that \(\mathrm{b}=10 \quad\) because the y -intercept is 10
- The equation is \(y=3 / 2 x+10\)

Type in \(3 / 2 \mathrm{x}+10\)
25) Problem \#PRADSK2 "PRADSK2 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"
\({ }^{\text {nttp: }}\) Write a linear equation for the line with slope \(=-8 / 8\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-8 / 8 \mathrm{x}}+8\)
Hints:
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-8 / 8\) because the slope is \(-8 / 8\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-8 / 8 \mathrm{x}+8\)

Type in \(-8 / 8 x+8\)
26) Problem \#PRADSH6 "PRADSH6 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-3 / 3\)
Y-intercept of the equation: 9
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-3 / 3 x+9}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-3 / 3\) because the slope is \(-3 / 3\)

We know that \(\mathrm{b}=9\) because the y -intercept is 9
- The equation is \(y=-3 / 3 x+9\)

Type in \(-3 / 3 x+9\)
27) Problem \#PRADSHF "PRADSHF - Algebra1 Equation from Slope and Y-intercept Mastery Learning"

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 2/9
Y-intercept of the equation: 1
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{2 / 9 x+1}\)
\(\sqrt{ } 0.222222222222222 \mathrm{x}+1\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=2 / 9\) because the slope is \(2 / 9\)

We know that \(\mathrm{b}=1 \quad\) because the y -intercept is 1
- The equation is \(y=2 / 9 x+1\)

Type in \(2 / 9 \mathrm{x}+1\)
28) Problem \#PRADSJY "PRADSJY - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
nttp: Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 3
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ }\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=3\) because the y -intercept is 3
- The slope is 0 , so the equation is \(\mathrm{y}=3\)

Type in 3
29) Problem \#PRADSK8 "PRADSK8 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-6 / 2\) going through the point: \((0,4)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{ }-6 / 2 x+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-6 / 2\) because the slope is \(-6 / 2\)

We know that \(\mathrm{b}=4\) because \((0,4)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-6 / 2 x+4\)

Type in \(-6 / 2 x+4\)
30) Problem \#PRADSJM "PRADSJM - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 9
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=9\) because the y -intercept is 9
- The slope is 0 , so the equation is \(\mathrm{y}=9\)

Type in 9
31) Problem \#PRADSK7 "PRADSK7 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-3 / 7\) going through the point: \((0,10)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(-3 / 7 x+10\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-3 / 7\) because the slope is \(-3 / 7\)

We know that \(\mathrm{b}=10\) because \((0,10)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-3 / 7 \mathrm{x}+10\)

Type in \(-3 / 7 x+10\)

\section*{32) Problem \#PRADSHV "PRADSHV - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: -4/2
Y-intercept of the equation: 4
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-4 / 2 x+4}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-4 / 2\) because the slope is \(-4 / 2\)

We know that \(\mathrm{b}=4\) because the y -intercept is 4
- The equation is \(\mathrm{y}=-4 / 2 \mathrm{x}+4\)

Type in \(-4 / 2 x+4\)
33) Problem \#PRADSJ4 "PRADSJ4 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=5 / 9\) going through the point: \((0,4)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{5 / 9 x}+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=5 / 9\) because the slope is \(5 / 9\)

We know that \(\mathrm{b}=4\) because \((0,4)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=5 / 9 x+4\)

Type in \(5 / 9 x+4\)
34) Problem \#PRADSHY "PRADSHY - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: -7/2
Y-intercept of the equation: 10
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-7 / 2 x+10}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-7 / 2\) because the slope is \(-7 / 2\)

We know that \(\mathrm{b}=10\) because the y -intercept is 10
- The equation is \(\mathrm{y}=-7 / 2 \mathrm{x}+10\)

Type in \(-7 / 2 x+10\)

\section*{35) Problem \#PRADSJT "PRADSJT - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery} Learning 3 "
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 4
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=4\) because the y -intercept is 4
- The slope is 0 , so the equation is \(\mathrm{y}=4\)

Type in 4
36) Problem \#PRADSG4 "PRADSG4 - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(10 / 2\)
Y-intercept of the equation: 8
Use x as the independent variable.
Algebraic Expression:
v \(10 / 2 \mathrm{x}+8\)
\(\sqrt{ } 5 x+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=10 / 2\) because the slope is \(10 / 2\)

We know that \(\mathrm{b}=8 \quad\) because the y -intercept is 8
- The equation is \(\mathrm{y}=10 / 2 \mathrm{x}+8\)

Type in \(10 / 2 \mathrm{x}+8\)
37) Problem \#PRADSKT "PRADSKT - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"
\({ }^{\text {nttp: }}\) Write a linear equation for the line with slope \(=-8 / 3\) going through the point: \((0,6)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-8 / 3 x}+6\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-8 / 3\) because the slope is \(-8 / 3\)

We know that \(\mathrm{b}=6\) because \((0,6)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-8 / 3 x+6\)

Type in \(-8 / 3 x+6\)
38) Problem \#PRADSJP "PRADSJP - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 10
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 10\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=10\) because the y -intercept is 10
- The slope is 0 , so the equation is \(\mathrm{y}=10\)

Type in 10
39) Problem \#PRADSJN "PRADSJN - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 1
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=1\) because the y -intercept is 1
- The slope is 0 , so the equation is \(\mathrm{y}=1\)

Type in 1
40) Problem \#PRADSKH "PRADSKH - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=6 / 8\) going through the point: \((0,10)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{6 / 8 x}+10\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=6 / 8\) because the slope is \(6 / 8\)

We know that \(\mathrm{b}=10\) because \((0,10)\) is on the y -axis so it is the y -intercept
- The equation is \(y=6 / 8 x+10\)

Type in \(6 / 8 x+10\)
41) Problem \#PRADSJ5 "PRADSJ5 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=4 / 4\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 4 / 4 \mathrm{x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=4 / 4\) because the slope is \(4 / 4\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=4 / 4 x+8\)

Type in \(4 / 4 x+8\)

Write a linear equation for the line with slope \(=-1 / 10\) going through the point: \((0,4)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.
Algebraic Expression:
- \(-1 / 10 x+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=-1 / 10\) because the slope is \(-1 / 10\)

We know that \(b=4\) because \((0,4)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=-1 / 10 x+4\)

Type in \(-1 / 10 x+4\)

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 9\)
Y-intercept of the equation: 5
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-5 / 9 x}+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 9\) because the slope is \(-5 / 9\)

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The equation is \(\mathrm{y}=-5 / 9 \mathrm{x}+5\)

Type in \(-5 / 9 x+5\)
44) Problem \#PRADSJE "PRADSJE - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 4
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=4\) because the y -intercept is 4
- The slope is 0 , so the equation is \(\mathrm{y}=4\)

Type in 4
45) Problem \#PRADSH5 "PRADSH5 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-10 / 4\)
Y-intercept of the equation: 5
Use x as the independent variable.
Algebraic Expression:
- \(-10 / 4 \mathrm{x}+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-10 / 4\) because the slope is \(-10 / 4\)

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The equation is \(\mathrm{y}=-10 / 4 \mathrm{x}+5\)

Type in \(-10 / 4 x+5\)
46) Problem \#PRADSG7 "PRADSG7 - Algebra1 Equation from Slope and Y-intercept Mastery Learning"

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(10 / 6\)
Y-intercept of the equation: 9
Use x as the independent variable.
Algebraic Expression:
\(10 / 6 x+9\)
\(1.66666666666667 x+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=10 / 6\) because the slope is \(10 / 6\)

We know that \(\mathrm{b}=9 \quad\) because the y -intercept is 9
- The equation is \(\mathrm{y}=10 / 6 \mathrm{x}+9\)

Type in \(10 / 6 \mathrm{x}+9\)
47) Problem \#PRADSHC "PRADSHC - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 9/10
Y-intercept of the equation: 1
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{9 / 10 x}+1\)
\(\sqrt{ } 0.9 \mathrm{x}+1\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=9 / 10 \quad\) because the slope is \(9 / 10\)

We know that \(\mathrm{b}=1 \quad\) because the y -intercept is 1
- The equation is \(y=9 / 10 x+1\)

Type in \(9 / 10 \mathrm{x}+1\)
48) Problem \#PRADSKS "PRADSKS - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"
\({ }^{\text {nttp: }}\) Write a linear equation for the line with slope \(=-5 / 9\) going through the point: \((0,3)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-5 / 9 x}+3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 9\) because the slope is \(-5 / 9\)

We know that \(\mathrm{b}=3\) because \((0,3)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-5 / 9 \mathrm{x}+3\)

Type in \(-5 / 9 x+3\)
49) Problem \#PRADSKJ "PRADSKJ - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=9 / 6\) going through the point: \((0,9)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{9 / 6 x}+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=9 / 6\) because the slope is \(9 / 6\)

We know that \(\mathrm{b}=9\) because \((0,9)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=9 / 6 x+9\)

Type in \(9 / 6 x+9\)
50) Problem \#PRADSKV "PRADSKV - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-6 / 3\) going through the point: \((0,6)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.
Algebraic Expression:
ท \(-6 / 3 x+6\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-6 / 3\) because the slope is \(-6 / 3\)

We know that \(\mathrm{b}=6\) because \((0,6)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-6 / 3 x+6\)

Type in \(-6 / 3 x+6\)
51) Problem \#PRADSK5 "PRADSK5 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-6 / 2\) going through the point: \((0,10)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-6 / 2 x+10}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-6 / 2\) because the slope is \(-6 / 2\)

We know that \(\mathrm{b}=10\) because \((0,10)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-6 / 2 x+10\)

Type in \(-6 / 2 x+10\)
52) Problem \#PRADSJ7 "PRADSJ7 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=2 / 9\) going through the point: \((0,7)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{2 / 9 x}+7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=2 / 9\) because the slope is \(2 / 9\)

We know that \(\mathrm{b}=7\) because \((0,7)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=2 / 9 \mathrm{x}+7\)

Type in \(2 / 9 \mathrm{x}+7\)
53) Problem \#PRADSHB "PRADSHB - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(10 / 1\)
Y-intercept of the equation: 9
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{10 / 1 x+9}\)
v \(10 \mathrm{x}+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=10 / 1\) because the slope is \(10 / 1\)

We know that \(\mathrm{b}=9 \quad\) because the y -intercept is 9
- The equation is \(\mathrm{y}=10 / 1 \mathrm{x}+9\)

Type in \(10 / 1 \mathrm{x}+9\)
54) Problem \#PRADSKZ "PRADSKZ - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"
\({ }^{\text {nttp }}\). Write a linear equation for the line with slope \(=-7 / 2\) going through the point: \((0,2)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-7 / 2 x+2}\)
Hints:
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-7 / 2\) because the slope is \(-7 / 2\)

We know that \(\mathrm{b}=2\) because \((0,2)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-7 / 2 x+2\)

Type in \(-7 / 2 x+2\)

Write a linear equation for the line with slope \(=-1 / 4\) going through the point: \((0,5)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\[
-1 / 4 x+5
\]

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-1 / 4\) because the slope is \(-1 / 4\)

We know that \(\mathrm{b}=5\) because \((0,5)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-1 / 4 x+5\)

Type in \(-1 / 4 \mathrm{x}+5\)

Write a linear equation for the line with slope \(=-8 / 10\) going through the point: \((0,4)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-8 / 10 x+4}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=-8 / 10\) because the slope is \(-8 / 10\)

We know that \(b=4\) because \((0,4)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=-8 / 10 x+4\)

Type in \(-8 / 10 x+4\)

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: -6/4
Y-intercept of the equation: 10
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-6 / 4 x}+10\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-6 / 4\) because the slope is \(-6 / 4\)

We know that \(\mathrm{b}=10\) because the y -intercept is 10
- The equation is \(\mathrm{y}=-6 / 4 \mathrm{x}+10\)

Type in \(-6 / 4 \mathrm{x}+10\)
58) Problem \#PRADSKB "PRADSKB - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=6 / 3\) going through the point: \((0,5)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 6 / 3 x+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=6 / 3\) because the slope is \(6 / 3\)

We know that \(\mathrm{b}=5\) because \((0,5)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=6 / 3 x+5\)

Type in \(6 / 3 x+5\)
59) Problem \#PRADSHG "PRADSHG - Algebra1 Equation from Slope and Y-intercept Mastery

\section*{Learning"}

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 3/4
Y-intercept of the equation: 5
Use \(x\) as the independent variable.
Algebraic Expression:
\(3 / 4 x+5\)
ป \(0.75 x+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=3 / 4\) because the slope is \(3 / 4\)

We know that \(\mathrm{b}=5 \quad\) because the y -intercept is 5
- The equation is \(y=3 / 4 x+5\)

Type in \(3 / 4 \mathrm{x}+5\)

Write a linear equation for the line with slope \(=3 / 5\) going through the point: \((0,2)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{3 / 5 x}+2\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=3 / 5\) because the slope is \(3 / 5\)

We know that \(\mathrm{b}=2\) because \((0,2)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=3 / 5 \mathrm{x}+2\)

Type in \(3 / 5 x+2\)
61) Problem \#PRADSHJ "PRADSHJ - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(3 / 1\)
Y-intercept of the equation: 4
Use x as the independent variable.
Algebraic Expression:
v \(3 / 1 x+4\)
v \(3 x+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=3 / 1 \quad\) because the slope is \(3 / 1\)

We know that \(\mathrm{b}=4 \quad\) because the y -intercept is 4
- The equation is \(\mathrm{y}=3 / 1 \mathrm{x}+4\)

Type in \(3 / 1 \mathrm{x}+4\)
62) Problem \#PRADSHD "PRADSHD - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation: http:

Slope of the equation: 4/3
Y-intercept of the equation: 4
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{4 / 3 x}+4\)
\(1.33333333333333 x+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=4 / 3\) because the slope is \(4 / 3\)

We know that \(\mathrm{b}=4 \quad\) because the y -intercept is 4
- The equation is \(y=4 / 3 x+4\)

Type in \(4 / 3 x+4\)
63) Problem \#PRADSMK "PRADSMK - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery

Learning 4"
nttp: Write a linear equation for the line with slope \(=0\) going through the point: \((0,10)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 10\)
Hints:
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=10\) because \((0,10)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=10\)

Type in 10
64) Problem \#PRADSKG "PRADSKG - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=2 / 1\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{2 / 1 x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=2 / 1\) because the slope is \(2 / 1\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=2 / 1 x+8\)

Type in \(2 / 1 x+8\)
65) Problem \#PRADSMP "PRADSMP - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,6)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.

\section*{Algebraic Expression:}

6

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=6\) because \((0,6)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=6\)

Type in 6
66) Problem \#PRADSJU "PRADSJU - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 10
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 10\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=10\) because the y -intercept is 10
- The slope is 0 , so the equation is \(\mathrm{y}=10\)

Type in 10
67) Problem \#PRADSJR "PRADSJR - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 9
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=9\) because the y -intercept is 9
- The slope is 0 , so the equation is \(\mathrm{y}=9\)

Type in 9
68) Problem \#PRADSH7 "PRADSH7 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: -4/1
Y-intercept of the equation: 2
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-4 / 1 \mathrm{x}+2}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-4 / 1\) because the slope is \(-4 / 1\)

We know that \(\mathrm{b}=2\) because the y -intercept is 2
- The equation is \(\mathrm{y}=-4 / 1 \mathrm{x}+2\)

Type in \(-4 / 1 x+2\)
69) Problem \#PRADSKK "PRADSKK - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=1 / 5\) going through the point: \((0,2)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{1 / 5 x}+2\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=1 / 5\) because the slope is \(1 / 5\)

We know that \(\mathrm{b}=2\) because \((0,2)\) is on the y -axis so it is the y -intercept
- The equation is \(y=1 / 5 x+2\)

Type in \(1 / 5 x+2\)
70) Problem \#PRADSJ3 "PRADSJ3 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=5 / 7\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{5 / 7 x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=5 / 7\) because the slope is \(5 / 7\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=5 / 7 \mathrm{x}+8\)

Type in \(5 / 7 x+8\)
71) Problem \#PRADSMW "PRADSMW - 57702-Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,3)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=3\) because \((0,3)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=3\)

Type in 3
72) Problem \#PRADSJ2 "PRADSJ2 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=4 / 1\) going through the point: \((0,8)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 4 / 1 \mathrm{x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=4 / 1\) because the slope is \(4 / 1\)

We know that \(\mathrm{b}=8\) because \((0,8)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=4 / 1 x+8\)

Type in \(4 / 1 x+8\)
73) Problem \#PRADSKU "PRADSKU - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-5 / 8\) going through the point: \((0,3)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.
Algebraic Expression:
ง \(-5 / 8 x+3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 8\) because the slope is \(-5 / 8\)

We know that \(\mathrm{b}=3\) because \((0,3)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-5 / 8 \mathrm{x}+3\)

Type in \(-5 / 8 x+3\)
74) Problem \#PRADSMG "PRADSMG - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,5)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}

5

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=5\) because \((0,5)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=5\)

Type in 5
75) Problem \#PRADSME "PRADSME - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,10)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}

10

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=10\) because \((0,10)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=10\)

Type in 10
76) Problem \#PRADSMC "PRADSMC - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,1)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}

1

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=1\) because \((0,1)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=1\)

Type in 1

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: -6/2
Y-intercept of the equation: 10
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-6 / 2 x+10}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-6 / 2\) because the slope is \(-6 / 2\)

We know that \(\mathrm{b}=10\) because the y -intercept is 10
- The equation is \(\mathrm{y}=-6 / 2 \mathrm{x}+10\)

Type in \(-6 / 2 x+10\)
78) Problem \#PRADSMU "PRADSMU - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,3)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
3

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(b=3\) because \((0,3)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The slope is 0 , so the equation is \(\mathrm{y}=3\)

Type in 3
79) Problem \#PRADSMT "PRADSMT - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,4)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.
Algebraic Expression:
\(\sqrt{ } 4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=4\) because \((0,4)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=4\)

Type in 4

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-3 / 9\)
Y-intercept of the equation: 1
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-3 / 9 x+1}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-3 / 9\) because the slope is \(-3 / 9\)

We know that \(\mathrm{b}=1\) because the y -intercept is 1
- The equation is \(\mathrm{y}=-3 / 9 \mathrm{x}+1\)

Type in \(-3 / 9 x+1\)

\section*{81) Problem \#PRADSH4 "PRADSH4 - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-2 / 9\)
Y-intercept of the equation: 5
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-2 / 9 \mathrm{x}}+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-2 / 9\) because the slope is \(-2 / 9\)

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The equation is \(y=-2 / 9 x+5\)

Type in \(-2 / 9 x+5\)
82) Problem \#PRADSKE "PRADSKE - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=9 / 9\) going through the point: \((0,9)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 9 / 9 \mathrm{x}+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=9 / 9\) because the slope is 9/9

We know that \(\mathrm{b}=9\) because \((0,9)\) is on the y -axis so it is the y -intercept
- The equation is \(y=9 / 9 x+9\)

Type in \(9 / 9 x+9\)

\section*{83) Problem \#PRADSMN "PRADSMN - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery}

\section*{Learning 4"}

Write a linear equation for the line with slope \(=0\) going through the point: \((0,7)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.
Algebraic Expression:
\(\sqrt{ } 7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=7\) because \((0,7)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=7\)

Type in 7
84) Problem \#PRADSHA "PRADSHA - Algebra1 Equation from Slope and Y-intercept Mastery Learning" Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(8 / 9\)
Y-intercept of the equation: 4
Use x as the independent variable.
Algebraic Expression:
- \(8 / 9 x+4\)

ป \(0.888888888888889 \mathrm{x}+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=8 / 9\) because the slope is \(8 / 9\)

We know that \(\mathrm{b}=4 \quad\) because the y -intercept is 4
- The equation is \(y=8 / 9 x+4\)

Type in \(8 / 9 \mathrm{x}+4\)
85) Problem \#PRADSJ8 "PRADSJ8 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6" Write a linear equation for the line with slope \(=8 / 1\) going through the point: \((0,9)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{8 / 1 x}+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=8 / 1\) because the slope is \(8 / 1\)

We know that \(\mathrm{b}=9\) because \((0,9)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(\mathrm{y}=8 / 1 \mathrm{x}+9\)

Type in \(8 / 1 x+9\)

Write a linear equation for the line with slope \(=9 / 1\) going through the point: \((0,7)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 9 / 1 \mathrm{x}+7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=9 / 1\) because the slope is \(9 / 1\)

We know that \(\mathrm{b}=7\) because \((0,7)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=9 / 1 \mathrm{x}+7\)

Type in \(9 / 1 x+7\)

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 7
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=7\) because the y -intercept is 7
- The slope is 0 , so the equation is \(\mathrm{y}=7\)

Type in 7
88) Problem \#PRADSHU "PRADSHU - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 3\)
Y-intercept of the equation: 3
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-5 / 3 x}+3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 3\) because the slope is \(-5 / 3\)

We know that \(\mathrm{b}=3\) because the y -intercept is 3
- The equation is \(y=-5 / 3 x+3\)

Type in \(-5 / 3 x+3\)
89) Problem \#PRADSKY "PRADSKY - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-9 / 7\) going through the point: \((0,9)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{ }-9 / 7 \mathrm{x}+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-9 / 7\) because the slope is \(-9 / 7\)

We know that \(\mathrm{b}=9\) because \((0,9)\) is on the y -axis so it is the y -intercept
- The equation is \(\mathrm{y}=-9 / 7 \mathrm{x}+9\)

Type in \(-9 / 7 x+9\)

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-4 / 3\)
Y-intercept of the equation: 8
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-4 / 3 x+8}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-4 / 3\) because the slope is \(-4 / 3\)

We know that \(\mathrm{b}=8\) because the y -intercept is 8
- The equation is \(y=-4 / 3 x+8\)

Type in \(-4 / 3 x+8\)
91) Problem \#PRADSKM "PRADSKM - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=8 / 3\) going through the point: \((0,4)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 8 / 3 x+4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=8 / 3\) because the slope is \(8 / 3\)

We know that \(\mathrm{b}=4\) because \((0,4)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=8 / 3 x+4\)

Type in \(8 / 3 x+4\)

\section*{92) Problem \#PRADSJW "PRADSJW - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery}

Learning 3"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0

Y-intercept of the equation: 5
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The slope is 0 , so the equation is \(y=5\)

Type in 5
93) Problem \#PRADSKC "PRADSKC - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"
Write a linear equation for the line with slope \(=2 / 5\) going through the point: \((0,5)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)

Use \(x\) as the independent variable.

\section*{Algebraic Expression:}
v \(2 / 5 x+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=2 / 5\) because the slope is \(2 / 5\)

We know that \(\mathrm{b}=5\) because \((0,5)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=2 / 5 x+5\)

Type in \(2 / 5 x+5\)

\section*{94) Problem \#PRADSJG "PRADSJG - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery}

\section*{Learning 3"}

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0

Y-intercept of the equation: 7
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=7\) because the y -intercept is 7
- The slope is 0 , so the equation is \(\mathrm{y}=7\)

Type in 7
95) Problem \#PRADSKX "PRADSKX - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-7 / 4\) going through the point: \((0,3)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use \(x\) as the independent variable.
Algebraic Expression:
ง \(-7 / 4 x+3\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=-7 / 4\) because the slope is \(-7 / 4\)

We know that \(b=3\) because \((0,3)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=-7 / 4 x+3\)

Type in \(-7 / 4 \mathrm{x}+3\)
96) Problem \#PRADSJH "PRADSJH - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0

Y-intercept of the equation: 7
Use x as the independent variable.

\section*{Algebraic Expression:}

ノ 7

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=7\) because the y -intercept is 7
- The slope is 0 , so the equation is \(\mathrm{y}=7\)

Type in 7
97) Problem \#PRADSJ9 "PRADSJ9 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6"

Write a linear equation for the line with slope \(=9 / 5\) going through the point: \((0,6)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{9 / 5 x}+6\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=9 / 5\) because the slope is \(9 / 5\)

We know that \(b=6\) because \((0,6)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=9 / 5 x+6\)

Type in \(9 / 5 x+6\)

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 6\)
Y-intercept of the equation: 5
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{-5 / 6 x}+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-5 / 6\) because the slope is \(-5 / 6\)

We know that \(\mathrm{b}=5\) because the y -intercept is 5
- The equation is \(y=-5 / 6 x+5\)

Type in \(-5 / 6 x+5\)
99) Problem \#PRADSHM "PRADSHM - Algebra1 Equation from Slope and Y-intercept Mastery Learning"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 9/10
Y-intercept of the equation: 7
Use x as the independent variable.
Algebraic Expression:
- \(9 / 10 x+7\)
\(\sqrt{ } 0.9 \mathrm{x}+7\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=9 / 10 \quad\) because the slope is \(9 / 10\)

We know that \(\mathrm{b}=7 \quad\) because the y -intercept is 7
- The equation is \(y=9 / 10 x+7\)

Type in \(9 / 10 \mathrm{x}+7\)
100) Problem \#PRADSJQ "PRADSJQ - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery
\({ }^{\text {nttp }}\) Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 8
Use x as the independent variable.

\section*{Algebraic Expression:}

8

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=8\) because the y -intercept is 8
- The slope is 0 , so the equation is \(\mathrm{y}=8\)

Type in 8
101) Problem \#PRADSK4 "PRADSK4 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 5"

Write a linear equation for the line with slope \(=-7 / 3\) going through the point: \((0,9)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(-7 / 3 x+9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=-7 / 3\) because the slope is \(-7 / 3\)

We know that \(\mathrm{b}=9\) because \((0,9)\) is on the y -axis so it is the y -intercept
- The equation is \(y=-7 / 3 x+9\)

Type in \(-7 / 3 x+9\)
102) Problem \#PRADSG8 "PRADSG8 - Algebra1 Equation from Slope and Y-intercept Mastery

\section*{Learning"}

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 3/7
Y-intercept of the equation: 5
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{3 / 7 x}+5\)
\(\sqrt{ } 0.428571428571429 \mathrm{x}+5\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=3 / 7\) because the slope is \(3 / 7\)

We know that \(\mathrm{b}=5 \quad\) because the y -intercept is 5
- The equation is \(\mathrm{y}=3 / 7 \mathrm{x}+5\)

Type in \(3 / 7 x+5\)

\section*{103) Problem \#PRADSKA "PRADSKA - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 6"
\({ }^{n t t p}\). Write a linear equation for the line with slope \(=9 / 4\) going through the point: \((0,6)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{9 / 4 x}+6\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=9 / 4\) because the slope is \(9 / 4\)

We know that \(b=6\) because \((0,6)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=9 / 4 x+6\)

Type in \(9 / 4 x+6\)
104) Problem \#PRADSJX "PRADSJX - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 4
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=4\) because the y -intercept is 4
- The slope is 0 , so the equation is \(\mathrm{y}=4\)

Type in 4
105) Problem \#PRADSJV "PRADSJV - 56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 9
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=9\) because the y -intercept is 9
- The slope is 0 , so the equation is \(\mathrm{y}=9\)

Type in 9
106) Problem \#PRADSMM "PRADSMM - 57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,7)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{7}\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=7\) because \((0,7)\) is on the y -axis so it is the y -intercept
- The slope is 0 , so the equation is \(\mathrm{y}=7\)

Type in 7
107) Problem \#PRADSHK "PRADSHK - Algebra1 Equation from Slope and Y-intercept Mastery

\section*{Learning"}

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 6/9
Y-intercept of the equation: 8
Use x as the independent variable.
Algebraic Expression:
- \(6 / 9 x+8\)
\(\sqrt{ } 0.666666666666667 \mathrm{x}+8\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=6 / 9\) because the slope is \(6 / 9\)

We know that \(\mathrm{b}=8 \quad\) because the y -intercept is 8
- The equation is \(y=6 / 9 x+8\)

Type in \(6 / 9 \mathrm{x}+8\)

\section*{108) Problem \#PRADSK3 "PRADSK3 - Algebra1 Equation from Slope and Y-intercept Mastery Learning} 5"
nttp: Write a linear equation for the line with slope \(=-1 / 10\) going through the point: \((0,6)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.
Algebraic Expression:
\(\sqrt{ }-1 / 10 x+6\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(m=-1 / 10\) because the slope is \(-1 / 10\)

We know that \(b=6\) because \((0,6)\) is on the \(y\)-axis so it is the \(y\)-intercept
- The equation is \(y=-1 / 10 x+6\)

Type in \(-1 / 10 x+6\)

Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 1
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

\section*{Hints:}
- Linear equations can be written in this form where \(m\) is the slope and \(b\) is the \(y\)-intercept.

- We know that \(\mathrm{m}=0\) because the slope is 0

We know that \(\mathrm{b}=1\) because the y -intercept is 1
- The slope is 0 , so the equation is \(\mathrm{y}=1\)

Type in 1

\section*{Select All}

Problem \#1044599 "PRABEB92-56786 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 3 Video Hints"
Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: 0
Y-intercept of the equation: 5
Use x as the independent variable.

\section*{Algebraic Expression:}

5

\section*{Hints:}


\section*{PRADSJD Hint 2}

- The slope is 0 , so the equation is \(\mathrm{y}=5\)

Type in 5

\section*{Select All}

Problem \#1044600 "PRABEB93 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 2

\section*{Video Hints"}

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 8\)
Y-intercept of the equation: 9
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{-5 / 8 x}+9\)

\section*{Hints:}

- The equation is \(y=-5 / 8 x+9\)

Type in \(-5 / 8 x+9\)

\section*{Select All}

Problem \#1044601 "PRABEB94 - Algebra1 Equation from Slope and Y-intercept Mastery Learning Video Hints"
Write an equation in the form " \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(5 / 5\)
Y-intercept of the equation: 2
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{5 / 5 x+2}\)
\(\sqrt{1 \mathrm{x}+2}\)

\section*{Hints:}
\(\square\)

- The equation is \(y=5 / 5 x+2\)

Type in \(5 / 5 \mathrm{x}+2\)

\section*{Select All}

Problem \#1044602 "PRABEB95-Algebra1 Equation from Slope and Y-intercept Mastery Learning 2

\section*{Video Hints"}

Write an equation in the form \(\mathrm{y}=\) \(\qquad\) " using the following information about the equation:

Slope of the equation: \(-5 / 9\)
Y-intercept of the equation: 5
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{-5 / 9 \mathrm{x}}+5\)
Hints:

- The equation is \(\mathrm{y}=-5 / 9 \mathrm{x}+5\)

Type in \(-5 / 9 x+5\)

\section*{Select All}

Problem \#1044603 "PRABEB96 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 6 Video Hint"
Write a linear equation for the line with slope \(=3 / 5\) going through the point: \((0,2)\)

Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(3 / 5 x+2\)

\section*{Hints:}

- <iframe width="560" height="315" src="https://www.youtube.com/embed/moJp_p-UXZo" frameborder="0" allowfullscreen></iframe>
- The equation is \(\mathrm{y}=3 / 5 \mathrm{x}+2\)

Type in \(3 / 5 x+2\)

Select All
Problem \#1044604 "PRABEB97-57702 - Algebra1 Equation from Slope and Y-intercept Mastery Learning 4 Video Hints"
Write a linear equation for the line with slope \(=0\) going through the point: \((0,6)\)
Write your equation in the form \(\mathrm{y}=\) \(\qquad\)
Use x as the independent variable.

\section*{Algebraic Expression:}
\(\sqrt{6}\)

\section*{Hints:}
\(\square\)

- The slope is 0 , so the equation is \(\mathrm{y}=6\)

Type in 6

Problem Set "Multiplying Integers 7.NS.A.2c" id:[PSAGGQ]

\section*{Select All}
1) Problem \#PRABFB7 "PRABFB7 - Multiplication of Integers"

What is 7 * (-6)?
Algebraic Expression:
\(\sqrt{-42}\)
Hints:


Remember the rule of multiplying signs which says,

https://wn


\section*{PSAGGQ 1.2}

-
We have, the second case where,


Thus using this rule we get,
7 * (-6)
\(=-42\)
Type in -42

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(7 * 6\)

\section*{Algebraic Expression:}
\(\sqrt{ } 42\)

\section*{Hints:}
-

Below are the multiplication tables of 7 and 6.
You can use them to compute 7*6.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{c|}{ Table 2} \\
\hline 7 & \(*\) & 0 & \(=\) & 0 & & 6 & \(*\) & 0 & \(=\) & 0 \\
\hline 7 & \(*\) & 1 & \(=\) & 7 & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 7 & \(*\) & 2 & \(=\) & 14 & & 6 & \(*\) & 2 & \(=\) & 12 \\
\hline 7 & \(*\) & 3 & \(=\) & 21 & & 6 & \(*\) & 3 & \(=\) & 18 \\
\hline 7 & \(*\) & 4 & \(=\) & 28 & & 6 & \(*\) & 4 & \(=\) & 24 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 7 & \(*\) & 5 & \(=\) & 35 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline 7 & \(*\) & 6 & \(=\) & 42 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 7 & \(*\) & 7 & \(=\) & 49 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 7 & \(*\) & 8 & \(=\) & 56 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 7 & \(*\) & 9 & \(=\) & 63 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 7 & \(*\) & 10 & \(=\) & 70 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(7 * 6=42\)

And at the row in table 2 that shows, \(6 * 7=42\)
- \(7 * 6=42\)

Thus, type in 42.

\section*{Scaffold:}

We know,
7 * \(6=42\)
Now try the original problem again.

What is 7 * (-6)?
Algebraic Expression:
\(\sqrt{ }-42\)

\section*{Hints:}
- We know,
\(7 * 6=42\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
7 * (-6)
\(=-42\)

Type in -42
2) Problem \#PRABFB2 "PRABFB2 - Multiplication of Integers"

What is 6 * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{ }-24\)

\section*{Hints:}


Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
6 * (-4)
\(=-24\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(6 * 4\)

\section*{Algebraic Expression:}
\(\sqrt{24}\)

\section*{Hints:}
-
Below are the multiplication tables of 6 and 4 .
You can use them to compute 6*4.

-
Look at the row in table 1 that shows, \(6 * 4=24\)

And at the row in table 2 that shows,
\(4 * 6=24\)
- \(6 * 4=24\)

Thus, type in 24.

\section*{Scaffold:}

We know,
\(6 * 4=24\)
Now try the original problem again.

What is 6 * (-4)?

\section*{Algebraic Expression:}
\[
\sqrt{-24}
\]

\section*{Hints:}
- We know,
\(6 * 4=24\)

We need to consider the signs of the factors as well.
-

Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
6 * (-4)
\(=-24\)

Type in -24
3) Problem \#PRABFB6 "PRABFB6 - Multiplication of Integers"

What is 2 * \((-3)\) ?
Algebraic Expression:
\(\sqrt{-6}\)
Hints:


Remember the rule of multiplying signs which says,


\section*{PSAGGQ 3.2}

-
We have, the second case where,


Thus using this rule we get,
2 * (-3)
\(=-6\)
Type in -6

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(2 * 3\)

\section*{Algebraic Expression:}
\(\sqrt{ } 6\)

\section*{Hints:}
-

Below are the multiplication tables of 2 and 3.
You can use them to compute 2*3.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1 } & & \multicolumn{4}{c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 3 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 3 & \(*\) & 1 & \(=\) & 3 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & 3 & \(*\) & 2 & \(=\) & 6 \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & 3 & \(*\) & 3 & \(=\) & 9 \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 3 & \(*\) & 4 & \(=\) & 12
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 3 & \(*\) & 5 & \(=\) & 15 \\
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 3 & \(*\) & 6 & \(=\) & 18 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 3 & \(*\) & 7 & \(=\) & 21 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 3 & \(*\) & 8 & \(=\) & 24 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 3 & \(*\) & 9 & \(=\) & 27 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 3 & \(*\) & 10 & \(=\) & 30 \\
\hline
\end{tabular}

Look at the row in table 1 that shows,
2 * 3 = 6

And at the row in table 2 that shows, 3 * \(2=6\)
- \(2 * 3=6\)

Thus, type in 6.

\section*{Scaffold:}

We know,
2 * 3 = 6
Now try the original problem again.

What is 2 * \((-3)\) ?
Algebraic Expression:
ノ -6

\section*{Hints:}
- We know,
\(2 * 3=6\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
2 * (-3)
\(=-6\)

Type in -6
4) Problem \#PRABFB3 "PRABFB3 - Multiplication of Integers"

What is 2 * \((-5)\) ?
Algebraic Expression:
\(\sqrt{ }-10\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 5

\section*{Algebraic Expression:}

10

\section*{Hints:}

Below are the multiplication tables of 2 and 5.
You can use them to compute \(2 * 5\).
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 5 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 5 & \(*\) & 1 & \(=\) & 5 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & 5 & \(*\) & 2 & \(=\) & 10 \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & 5 & \(*\) & 3 & \(=\) & 15 \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 5 & \(*\) & 4 & \(=\) & 20 \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 5 & \(*\) & 5 & \(=\) & 25 \\
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 5 & \(*\) & 6 & \(=\) & 30 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 5 & \(*\) & 7 & \(=\) & 35 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 5 & \(*\) & 8 & \(=\) & 40 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-

Look at the row in table 1 that shows, \(2 * 5=10\)

And at the row in table 2 that shows, \(5 * 2=10\)
- \(2 * 5=10\)

Thus, type in 10.

\section*{Scaffold:}

We know,
\(2 * 5=10\)
Now try the original problem again.

What is 2 * (-5)?

\section*{Algebraic Expression:}
\[
\sqrt{ }-10
\]

\section*{Hints:}
- We know,
\(2 * 5=10\)

We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
2 * (-5)
\(=-10\)

Type in -10
5) Problem \#PRABFB8 "PRABFB8 - Multiplication of Integers"

What is 8 * (-9)?
Algebraic Expression:
\(\sqrt{ }-72\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{Algebraic Expression:}

72

\section*{Hints:}

Below are the multiplication tables of 8 and 9 .
You can use them to compute 8*9.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 8 & \(*\) & 0 & \(=\) & 0 & & 9 & \(*\) & 0 & \(=\) & 0 \\
\hline 8 & \(*\) & 1 & \(=\) & 8 & & 9 & \(*\) & 1 & \(=\) & 9 \\
\hline 8 & \(*\) & 2 & \(=\) & 16 & & 9 & \(*\) & 2 & \(=\) & 18 \\
\hline 8 & \(*\) & 3 & \(=\) & 24 & & 9 & \(*\) & 3 & \(=\) & 27 \\
\hline 8 & \(*\) & 4 & \(=\) & 32 & & 9 & \(*\) & 4 & \(=\) & 36 \\
\hline 8 & \(*\) & 5 & \(=\) & 40 & & 9 & \(*\) & 5 & \(=\) & 45 \\
\hline 8 & \(*\) & 6 & \(=\) & 48 & & 9 & \(*\) & 6 & \(=\) & 54 \\
\hline 8 & \(*\) & 7 & \(=\) & 56 & & 9 & \(*\) & 7 & \(=\) & 63 \\
\hline 8 & \(*\) & 8 & \(=\) & 64 & & 9 & \(*\) & 8 & \(=\) & 72 \\
\hline 8 & \(*\) & 9 & \(=\) & 72 & & 9 & \(*\) & 9 & \(=\) & 81 \\
\hline 8 & \(*\) & 10 & \(=\) & 80 & & 9 & \(*\) & 10 & \(=\) & 90 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(8 * 9=72\)
And at the row in table 2 that shows,
\(9 * 8=72\)
- \(8 * 9=72\)

Thus, type in 72.

\section*{Scaffold:}

We know,
\(8 * 9=72\)
Now try the original problem again.

What is 8 * (-9)?

\section*{Algebraic Expression:}
\(\sqrt{ }-72\)

\section*{Hints:}
- We know,
\(8 * 9=72\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
8 * (-9)
\(=-72\)

Type in -72
6) Problem \#PRABFBY "PRABFBY - Multiplication of Integers"

What is 1 * \((-4)\) ?
Algebraic Expression:
\(\sqrt{ }-4\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}

Below are the multiplication tables of 1 and 4.
You can use them to compute 1*4.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 1 & \(*\) & 0 & \(=\) & 0 & & 4 & \(*\) & 0 & \(=\) & 0 \\
\hline 1 & \(*\) & 1 & \(=\) & 1 & & 4 & \(*\) & 1 & \(=\) & 4 \\
\hline 1 & \(*\) & 2 & \(=\) & 2 & & 4 & \(*\) & 2 & \(=\) & 8 \\
\hline 1 & \(*\) & 3 & \(=\) & 3 & & 4 & \(*\) & 3 & \(=\) & 12 \\
\hline 1 & \(*\) & 4 & \(=\) & 4 & & 4 & \(*\) & 4 & \(=\) & 16 \\
\hline 1 & \(*\) & 5 & \(=\) & 5 & & 4 & \(*\) & 5 & \(=\) & 20 \\
\hline 1 & \(*\) & 6 & \(=\) & 6 & & 4 & \(*\) & 6 & \(=\) & 24 \\
\hline 1 & \(*\) & 7 & \(=\) & 7 & & 4 & \(*\) & 7 & \(=\) & 28 \\
\hline 1 & \(*\) & 8 & \(=\) & 8 & & 4 & \(*\) & 8 & \(=\) & 32 \\
\hline 1 & \(*\) & 9 & \(=\) & 9 & & 4 & \(*\) & 9 & \(=\) & 36 \\
\hline 1 & \(*\) & 10 & \(=\) & 10 & & 4 & \(*\) & 10 & \(=\) & 40 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(1 * 4=4\)
And at the row in table 2 that shows,
\(4 * 1=4\)
- \(1 * 4=4\)

Thus, type in 4.

\section*{Scaffold:}

We know,
\(1 * 4=4\)
Now try the original problem again.

What is 1 * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{ }-4\)

\section*{Hints:}
- We know,
\(1 * 4=4\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
1 * (-4)
\(=-4\)

Type in -4
7) Problem \#PRABFB4 "PRABFB4 - Multiplication of Integers"

What is 6 * \((-5)\) ?
Algebraic Expression:
\(\sqrt{ }-30\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{Algebraic Expression:}
\(\sqrt{ } 30\)

\section*{Hints:}

Below are the multiplication tables of 6 and 5 .
You can use them to compute 6*5.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 6 & \(*\) & 0 & \(=\) & 0 & & 5 & \(*\) & 0 & \(=\) & 0 \\
\hline 6 & \(*\) & 1 & \(=\) & 6 & & 5 & \(*\) & 1 & \(=\) & 5 \\
\hline 6 & \(*\) & 2 & \(=\) & 12 & & 5 & \(*\) & 2 & \(=\) & 10 \\
\hline 6 & \(*\) & 3 & \(=\) & 18 & & 5 & \(*\) & 3 & \(=\) & 15 \\
\hline 6 & \(*\) & 4 & \(=\) & 24 & & 5 & \(*\) & 4 & \(=\) & 20 \\
\hline 6 & \(*\) & 5 & \(=\) & 30 & & 5 & \(*\) & 5 & \(=\) & 25 \\
\hline 6 & \(*\) & 6 & \(=\) & 36 & & 5 & \(*\) & 6 & \(=\) & 30 \\
\hline 6 & \(*\) & 7 & \(=\) & 42 & & 5 & \(*\) & 7 & \(=\) & 35 \\
\hline 6 & \(*\) & 8 & \(=\) & 48 & & 5 & \(*\) & 8 & \(=\) & 40 \\
\hline 6 & \(*\) & 9 & \(=\) & 54 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 6 & \(*\) & 10 & \(=\) & 60 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(6 * 5=30\)
And at the row in table 2 that shows,
\(5 * 6=30\)
- \(6 * 5=30\)

Thus, type in 30.

\section*{Scaffold:}

We know,
\(6 * 5=30\)
Now try the original problem again.

What is 6 * (-5)?

\section*{Algebraic Expression:}
\[
\sqrt{ }-30
\]

\section*{Hints:}
- We know,
\(6 * 5=30\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
6 * (-5)
\(=-30\)

Type in -30
8) Problem \#PRABFBZ "PRABFBZ - Multiplication of Integers"

What is 10 * (-6)?
Algebraic Expression:
\(\sqrt{-60}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
10 * 6

\section*{Algebraic Expression:}
\(\sqrt{ } 60\)

\section*{Hints:}

Below are the multiplication tables of 10 and 6 .
You can use them to compute \(10 * 6\).
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & \multicolumn{5}{|c|}{ Table 2} \\
\hline 10 & \(*\) & 0 & \(=\) & 0 & & 6 & \(*\) & 0 & \(=\) & 0 \\
\hline 10 & \(*\) & 1 & \(=\) & 10 & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 10 & \(*\) & 2 & \(=\) & 20 & & 6 & \(*\) & 2 & \(=\) & 12 \\
\hline 10 & \(*\) & 3 & \(=\) & 30 & & 6 & \(*\) & 3 & \(=\) & 18 \\
\hline 10 & \(*\) & 4 & \(=\) & 40 & & 6 & \(*\) & 4 & \(=\) & 24 \\
\hline 10 & \(*\) & 5 & \(=\) & 50 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline 10 & \(*\) & 6 & \(=\) & 60 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 10 & \(*\) & 7 & \(=\) & 70 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 10 & \(*\) & 8 & \(=\) & 80 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 10 & \(*\) & 9 & \(=\) & 90 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 10 & \(*\) & 10 & \(=\) & 100 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(10 * 6=60\)

And at the row in table 2 that shows, \(6 * 10=60\)
- \(10 * 6=60\)

Thus, type in 60.

\section*{Scaffold:}

We know,
\(10 * 6=60\)
Now try the original problem again.

What is 10 * (-6)?

\section*{Algebraic Expression:}
\(\sqrt{ }-60\)

\section*{Hints:}
- We know,
\(10 * 6=60\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
10 * (-6)
\(=-60\)

Type in -60
9) Problem \#PRABFB5 "PRABFB5 - Multiplication of Integers"

What is 4 * \((-2)\) ?
Algebraic Expression:
\(\sqrt{ }-8\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(4 * 2\)

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}

Below are the multiplication tables of 4 and 2.
You can use them to compute 4*2.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 4 & \(*\) & 0 & \(=\) & 0 & & 2 & \(*\) & 0 & \(=\) & 0 \\
\hline 4 & \(*\) & 1 & \(=\) & 4 & & 2 & \(*\) & 1 & \(=\) & 2 \\
\hline 4 & \(*\) & 2 & \(=\) & 8 & & 2 & \(*\) & 2 & \(=\) & 4 \\
\hline 4 & \(*\) & 3 & \(=\) & 12 & & 2 & \(*\) & 3 & \(=\) & 6 \\
\hline 4 & \(*\) & 4 & \(=\) & 16 & & 2 & \(*\) & 4 & \(=\) & 8 \\
\hline 4 & \(*\) & 5 & \(=\) & 20 & & 2 & \(*\) & 5 & \(=\) & 10 \\
\hline 4 & \(*\) & 6 & \(=\) & 24 & & 2 & \(*\) & 6 & \(=\) & 12 \\
\hline 4 & \(*\) & 7 & \(=\) & 28 & & 2 & \(*\) & 7 & \(=\) & 14 \\
\hline 4 & \(*\) & 8 & \(=\) & 32 & & 2 & \(*\) & 8 & \(=\) & 16 \\
\hline 4 & \(*\) & 9 & \(=\) & 36 & & 2 & \(*\) & 9 & \(=\) & 18 \\
\hline 4 & \(*\) & 10 & \(=\) & 40 & & 2 & \(*\) & 10 & \(=\) & 20 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(4 * 2=8\)

And at the row in table 2 that shows,
\(2 * 4=8\)
- \(4 * 2=8\)

Thus, type in 8.

\section*{Scaffold:}

We know,
\(4 * 2=8\)
Now try the original problem again.

What is \(4^{*}(-2)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-8\)

\section*{Hints:}
- We know,
\(4 * 2=8\)
We need to consider the signs of the factors as well.


We have, the second case where,


Thus using this rule we get,
\(4 *(-2)\)
\(=-8\)

Type in -8
10) Problem \#PRABFDZ "PRABFDZ - Multiplication of Integers"

What is (-10) * (-6)?
Algebraic Expression:
\(\sqrt{ } 60\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
10 * 6

\section*{Algebraic Expression:}
\(\sqrt{ } 60\)

\section*{Hints:}
-
Below are the multiplication tables of 10 and 6 .
You can use them to compute \(10 *\).
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 10 & * & 0 & = & 0 & 6 & * & 0 & = & 0 \\
\hline 10 & * & 1 & = & 10 & 6 & * & 1 & = & 6 \\
\hline 10 & * & 2 & = & 20 & 6 & * & 2 & = & 12 \\
\hline 10 & * & 3 & = & 30 & 6 & * & 3 & = & 18 \\
\hline 10 & * & 4 & = & 40 & 6 & * & 4 & = & 24 \\
\hline 10 & * & 5 & = & 50 & 6 & * & 5 & = & 30 \\
\hline 10 & * & 6 & = & 60 & 6 & * & 6 & = & 36 \\
\hline 10 & * & 7 & = & 70 & 6 & * & 7 & = & 42 \\
\hline 10 & * & 8 & = & 80 & 6 & * & 8 & = & 48 \\
\hline 10 & * & 9 & = & 90 & 6 & * & 9 & = & 54 \\
\hline 10 & * & 10 & = & 100 & & * & 10 & = & 60 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(10 * 6=60\)

And at the row in table 2 that shows, \(6 * 10=60\)
- \(10 * 6=60\)

Thus, type in 60.

\section*{Scaffold:}

We know,
\(10 * 6=60\)
Now try the original problem again.

What is (-10) * (-6)?

\section*{Algebraic Expression:}
\(\sqrt{ } 60\)

\section*{Hints:}
- We know,
\(10 * 6=60\)
We need to consider the signs of the factors as well.

Our first factor, -10 , is negative and our second factor, -6 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-10) *(-6)\)
\(=60\)

Type in 60 .

\section*{11) Problem \#PRABFDR "PRABFDR - Multiplication of Integers"}

What is (-4) * 5 ?

\section*{Algebraic Expression:}
\(\sqrt{-20}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
4 * 5

\section*{Algebraic Expression:}
\(\sqrt{ } 20\)

\section*{Hints:}
-
Below are the multiplication tables of 4 and 5 .
You can use them to compute 4*5.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 4 & \(*\) & 0 & \(=\) & 0 & & 5 & \(*\) & 0 & \(=\) & 0 \\
\hline 4 & \(*\) & 1 & \(=\) & 4 & & 5 & \(*\) & 1 & \(=\) & 5 \\
\hline 4 & \(*\) & 2 & \(=\) & 8 & & 5 & \(*\) & 2 & \(=\) & 10 \\
\hline 4 & \(*\) & 3 & \(=\) & 12 & & 5 & \(*\) & 3 & \(=\) & 15 \\
\hline 4 & \(*\) & 4 & \(=\) & 16 & & 5 & \(*\) & 4 & \(=\) & 20 \\
\hline 4 & \(*\) & 5 & \(=\) & 20 & & 5 & \(*\) & 5 & \(=\) & 25 \\
\hline 4 & \(*\) & 6 & \(=\) & 24 & & 5 & \(*\) & 6 & \(=\) & 30 \\
\hline 4 & \(*\) & 7 & \(=\) & 28 & & 5 & \(*\) & 7 & \(=\) & 35 \\
\hline 4 & \(*\) & 8 & \(=\) & 32 & & 5 & \(*\) & 8 & \(=\) & 40 \\
\hline 4 & \(*\) & 9 & \(=\) & 36 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 4 & \(*\) & 10 & \(=\) & 40 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,

And at the row in table 2 that shows,
\(5 * 4=20\)
- \(4 * 5=20\)

Thus, type in 20.

\section*{Scaffold:}

We know,
\(4 * 5=20\)
Now try the original problem again.

What is (-4) * 5 ?

\section*{Algebraic Expression:}

\section*{Hints:}
- We know,
\(4 * 5=20\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-

We have, the third case where,


Thus using this rule we get,
\((-4) * 5\)
\(=-20\)

Type in -20

\section*{12) Problem \#PRABFEP "PRABFEP - Multiplication of Integers"}

What is (-10) * (-8)?
Algebraic Expression:
80

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
10 * 8

\section*{Algebraic Expression:}
\(\sqrt{80}\)

\section*{Hints:}
-
Below are the multiplication tables of 10 and 8.
You can use them to compute 10*8.
\begin{tabular}{|c|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 10 & \(*\) & 0 & \(=\) & 0 & & 8 & \(*\) & 0 & \(=\) & 0 \\
\hline 10 & \(*\) & 1 & \(=\) & 10 & & 8 & \(*\) & 1 & \(=\) & 8 \\
\hline 10 & \(*\) & 2 & \(=\) & 20 & & 8 & \(*\) & 2 & \(=\) & 16 \\
\hline 10 & \(*\) & 3 & \(=\) & 30 & & 8 & \(*\) & 3 & \(=\) & 24 \\
\hline 10 & \(*\) & 4 & \(=\) & 40 & & 8 & \(*\) & 4 & \(=\) & 32 \\
\hline 10 & \(*\) & 5 & \(=\) & 50 & & 8 & \(*\) & 5 & \(=\) & 40 \\
\hline 10 & \(*\) & 6 & \(=\) & 60 & & 8 & \(*\) & 6 & \(=\) & 48 \\
\hline 10 & \(*\) & 7 & \(=\) & 70 & & 8 & \(*\) & 7 & \(=\) & 56 \\
\hline 10 & \(*\) & 8 & \(=\) & 80 & & 8 & \(*\) & 8 & \(=\) & 64 \\
\hline 10 & \(*\) & 9 & \(=\) & 90 & & 8 & \(*\) & 9 & \(=\) & 72 \\
\hline 10 & \(*\) & 10 & \(=\) & 100 & & 8 & \(*\) & 10 & \(=\) & 80 \\
\hline
\end{tabular}
-
 \(10 * 8=80\)

And at the row in table 2 that shows, 8 * 10 = 80
- 10 * \(8=80\)

Thus, type in 80.

\section*{Scaffold:}

We know,
\(10 * 8=80\)
Now try the original problem again.

What is \((-10)\) * \((-8)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{80}
\]

\section*{Hints:}
- We know,
\(10 * 8=80\)
We need to consider the signs of the factors as well.
-

Our first factor, -10 , is negative and our second factor, -8 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-10) *(-8)\)
\(=80\)

Type in 80 .

What is (-9) * 4 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-36\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
9 * 4
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 36\)

\section*{Hints:}

Below are the multiplication tables of 9 and 4.
You can use them to compute 9*4.

-
Look at the row in table 1 that shows,
\(9 * 4=36\)
And at the row in table 2 that shows,
\(4 * 9=36\)
- \(9 * 4=36\)

Thus, type in 36.

\section*{Scaffold:}

We know,
\(9 * 4=36\)

Now try the original problem again.

What is (-9) * 4?
Algebraic Expression:
\(\sqrt{ }-36\)

\section*{Hints:}
- We know, 9 * \(4=36\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-9) * 4\)
\(=-36\)

\section*{14) Problem \#PRABFDY "PRABFDY - Multiplication of Integers"}

What is (-1) * (-2)?

\section*{Algebraic Expression:}
\(\sqrt{ } 2\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
1 * 2
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 2\)

\section*{Hints:}

Below are the multiplication tables of 1 and 2.
You can use them to compute \(1 * 2\).

-

Look at the row in table 1 that shows, \(1 * 2=2\)

And at the row in table 2 that shows,
\(2 * 1=2\)
- \(1 * 2=2\)

Thus, type in 2.

\section*{Scaffold:}

We know,
1 * 2 = 2
Now try the original problem again.

What is \((-1) *(-2)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 2\)

\section*{Hints:}
- We know, \(1 * 2=2\)

We need to consider the signs of the factors as well.
-

Our first factor, -1 , is negative and our second factor, -2 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

- We have, the fourth case where,


Thus using this rule we get,
\((-1) *(-2)\)
\(=2\)

Type in 2.
15) Problem \#PRABFDW "PRABFDW - Multiplication of Integers"

What is \((-6) *(-10)\) ?

\section*{Algebraic Expression:}

60

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
6 * 10

\section*{Algebraic Expression:}


\section*{Hints:}
-
Below are the multiplication tables of 6 and 10 .
You can use them to compute 6*10.


Look at the row in table 1 that shows, \(6 * 10=60\)

And at the row in table 2 that shows,
\(10 * 6=60\)
- \(6 * 10=60\)

Thus, type in 60.

\section*{Scaffold:}

We know,
\(6 * 10=60\)
Now try the original problem again.

What is \((-6)\) * \((-10)\) ?

\section*{Algebraic Expression:}

\author{
\(\sqrt{60}\)
}

\section*{Hints:}
- We know,
\(6 * 10=60\)

We need to consider the signs of the factors as well.
-
Our first factor, -6 , is negative and our second factor, -10 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-6) *(-10)\)
\(=60\)

Type in 60 .
16) Problem \#PRABFD6 "PRABFD6 - Multiplication of Integers"

What is (-9) * (-9)?

\section*{Algebraic Expression:}
\(\sqrt{ } 81\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
9*9

\section*{Algebraic Expression:}
\(\sqrt{ } 81\)

\section*{Hints:}
-
Below are the multiplication tables of 9 and 9 .
You can use them to compute 9*9.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 9 & \(*\) & 0 & \(=\) & 0 & & 9 & \(*\) & 0 & \(=\) & 0 \\
\hline 9 & \(*\) & 1 & \(=\) & 9 & & 9 & \(*\) & 1 & \(=\) & 9 \\
\hline 9 & \(*\) & 2 & \(=\) & 18 & & 9 & \(*\) & 2 & \(=\) & 18 \\
\hline 9 & \(*\) & 3 & \(=\) & 27 & & 9 & \(*\) & 3 & \(=\) & 27 \\
\hline 9 & \(*\) & 4 & \(=\) & 36 & & 9 & \(*\) & 4 & \(=\) & 36 \\
\hline 9 & \(*\) & 5 & \(=\) & 45 & & 9 & \(*\) & 5 & \(=\) & 45 \\
\hline 9 & \(*\) & 6 & \(=\) & 54 & & 9 & \(*\) & 6 & \(=\) & 54 \\
\hline 9 & \(*\) & 7 & \(=\) & 63 & & 9 & \(*\) & 7 & \(=\) & 63 \\
\hline 9 & \(*\) & 8 & \(=\) & 72 & & 9 & \(*\) & 8 & \(=\) & 72 \\
\hline 9 & \(*\) & 9 & \(=\) & 81 & & 9 & \(*\) & 9 & \(=\) & 81 \\
\hline 9 & \(*\) & 10 & \(=\) & 90 & & 9 & \(*\) & 10 & \(=\) & 90 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(9 * 9=81\)

And at the row in table 2 that shows, \(9 * 9=81\)
- 9 * \(9=81\)

Thus, type in 81.

\section*{Scaffold:}

We know,
9 * 9 = 81
Now try the original problem again.

What is (-9) * (-9)?
Algebraic Expression:
\(\sqrt{81}\)

\section*{Hints:}
- We know,
\(9 * 9=81\)
We need to consider the signs of the factors as well.
-
Our first factor, -9 , is negative and our second factor, -9 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-


- We have, the fourth case where,


Thus using this rule we get,
\((-9) *(-9)\)
\(=81\)

Type in 81.

\section*{17) Problem \#PRABFCV "PRABFCV - Multiplication of Integers"}

What is (-2) * 5 ?

\section*{Algebraic Expression:}
\(\sqrt{-10}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute, 2 * 5

\section*{Algebraic Expression:}

10

\section*{Hints:}

Below are the multiplication tables of 2 and 5 .
You can use them to compute 2*5.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 2 & * & 0 & = & 0 & 5 & * & 0 & = & 0 \\
\hline 2 & * & 1 & = & 2 & 5 & * & 1 & = & 5 \\
\hline 2 & * & 2 & = & 4 & 5 & * & 2 & = & 10 \\
\hline 2 & * & 3 & = & 6 & 5 & * & 3 & = & 15 \\
\hline 2 & * & 4 & = & 8 & 5 & * & 4 & = & 20 \\
\hline 2 & * & 5 & = & 10 & 5 & * & 5 & = & 25 \\
\hline 2 & * & 6 & = & 12 & 5 & * & 6 & = & 30 \\
\hline 2 & * & 7 & = & 14 & 5 & * & 7 & = & 35 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
2 & \(*\) & 8 & \(=\) & 16 & & & 5 & \(*\) & 8 & \(=\) \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 2 * 5 = 10

And at the row in table 2 that shows, \(5 * 2=10\)
- 2 * \(5=10\)

Thus, type in 10.

\section*{Scaffold:}

We know,
\(2 * 5=10\)
Now try the original problem again.

What is \((-2)\) * 5 ?

\section*{Algebraic Expression:}
\[
\sqrt{ }-10
\]

\section*{Hints:}
- We know,
\(2 * 5=10\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

\(X \longrightarrow=\square\)

-

We have, the third case where,


Thus using this rule we get,
\((-2) * 5\)
\(=-10\)

Type in -10
18) Problem \#PRABFC2 "PRABFC2 - Multiplication of Integers"

What is \(7 *(-1)\) ?

\section*{Algebraic Expression:}

」 -7

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
7 * 1
\]
 \(\sqrt{ } 7\)

\section*{Hints:}

Below are the multiplication tables of 7 and 1.
You can use them to compute 7*1.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{5}{|c|}{ Table 2 } \\
\hline 7 & \(*\) & 0 & \(=\) & 0 & & 1 & \(*\) & 0 & \(=\) & 0 \\
\hline 7 & \(*\) & 1 & \(=\) & 7 & & 1 & \(*\) & 1 & \(=\) & 1 \\
\hline 7 & \(*\) & 2 & \(=\) & 14 & & 1 & \(*\) & 2 & \(=\) & 2 \\
\hline 7 & \(*\) & 3 & \(=\) & 21 & & 1 & \(*\) & 3 & \(=\) & 3 \\
\hline 7 & \(*\) & 4 & \(=\) & 28 & & 1 & \(*\) & 4 & \(=\) & 4 \\
\hline 7 & \(*\) & 5 & \(=\) & 35 & & 1 & \(*\) & 5 & \(=\) & 5 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 7 & \(*\) & 6 & \(=\) & 42 & & 1 & \(*\) & 6 & \(=\) & 6 \\
\hline 7 & \(*\) & 7 & \(=\) & 49 & & 1 & \(*\) & 7 & \(=\) & 7 \\
\hline 7 & \(*\) & 8 & \(=\) & 56 & & 1 & \(*\) & 8 & \(=\) & 8 \\
\hline 7 & \(*\) & 9 & \(=\) & 63 & & 1 & \(*\) & 9 & \(=\) & 9 \\
\hline 7 & \(*\) & 10 & \(=\) & 70 & & 1 & \(*\) & 10 & \(=\) & 10 \\
\hline
\end{tabular}

Look at the row in table 1 that shows,
7 * \(1=7\)

And at the row in table 2 that shows,
1 * \(7=7\)
- \(7 * 1=7\)

Thus, type in 7.

\section*{Scaffold:}

We know,
7 * 1 = 7
Now try the original problem again.

What is 7 * (-1)?

\section*{Algebraic Expression:}
\[
\sqrt{-7}
\]

\section*{Hints:}
- We know,

7 * 1 = 7
We need to consider the signs of the factors as well.
-


\(x \&=\square\)


We have, the second case where,


Thus using this rule we get,
7 * \((-1)\)
\(=-7\)

Type in -7

\section*{19) Problem \#PRABFCZ "PRABFCZ - Multiplication of Integers"}

What is 8 * \((-8)\) ?
Algebraic Expression:
\(\sqrt{ }-64\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
8 * 8
\]

\section*{Hints:}
-
Below are the multiplication tables of 8 and 8 .
You can use them to compute 8*8.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & & \multicolumn{4}{c|}{ Table 2} \\
\hline 8 & \(*\) & 0 & \(=\) & 0 & & & 8 & \(*\) & 0 & \(=\) \\
\hline 8 & \(*\) & 1 & \(=\) & 8 & & & 8 & \(*\) & 1 & \(=\) \\
\hline 8 & \(*\) & 2 & \(=\) & 16 & & 8 & \(*\) & 2 & \(=\) & 16 \\
\hline 8 & \(*\) & 3 & \(=\) & 24 & & 8 & \(*\) & 3 & \(=\) & 24 \\
\hline 8 & \(*\) & 4 & \(=\) & 32 & & 8 & \(*\) & 4 & \(=\) & 32 \\
\hline 8 & \(*\) & 5 & \(=\) & 40 & & 8 & \(*\) & 5 & \(=\) & 40 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 8 & \(*\) & 6 & \(=\) & 48 & & 8 & \(*\) & 6 & \(=\) & 48 \\
\hline 8 & \(*\) & 7 & \(=\) & 56 & & 8 & \(*\) & 7 & \(=\) & 56 \\
\hline 8 & \(*\) & 8 & \(=\) & 64 & & 8 & \(*\) & 8 & \(=\) & 64 \\
\hline 8 & \(*\) & 9 & \(=\) & 72 & & 8 & \(*\) & 9 & \(=\) & 72 \\
\hline 8 & \(*\) & 10 & \(=\) & 80 & & 8 & \(*\) & 10 & \(=\) & 80 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(8 * 8=64\)

And at the row in table 2 that shows, \(8 * 8=64\)
- \(8 * 8=64\)

Thus, type in 64.

\section*{Scaffold:}

We know,
8 * \(8=64\)
Now try the original problem again.

What is 8 * \((-8)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{ }-64
\]

\section*{Hints:}
- We know,

8 * 8 = 64
We need to consider the signs of the factors as well.

Remember the rule of multiplying signs which says,


\(X=\square\)


We have, the second case where,


Thus using this rule we get,
8 * (-8)
\(=-64\)

Type in -64

\section*{20) Problem \#PRABFCX "PRABFCX - Multiplication of Integers"}

What is 2 * \((-6)\) ?
Algebraic Expression:
\(\sqrt{ }-12\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
2 * 6
\]

\section*{Hints:}
-
Below are the multiplication tables of 2 and 6 .
You can use them to compute 2*6.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1 } & & \multicolumn{4}{c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 6 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & & 6 & \(*\) & 2 & \(=\) \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & & 6 & \(*\) & 3 & \(=\) \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 6 & & 18 & 4 & \(=\) \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(2 * 6=12\)

And at the row in table 2 that shows, \(6 * 2=12\)
- \(2 * 6=12\)

Thus, type in 12.

\section*{Scaffold:}

We know,
\(2 * 6=12\)
Now try the original problem again.

What is 2 * \((-6)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-12\)

\section*{Hints:}
- We know,

2 * 6 = 12
We need to consider the signs of the factors as well.

Remember the rule of multiplying signs which says,


\(X=\square\)


We have, the second case where,


Thus using this rule we get,
2 * (-6)
\(=-12\)

Type in -12
21) Problem \#PRABFEA "PRABFEA - Multiplication of Integers"

What is (-9) * (-6)?

\section*{Algebraic Expression:}
\(\sqrt{ } 54\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{9 * 6}

\section*{Algebraic Expression:}

\section*{Hints:}
-
Below are the multiplication tables of 9 and 6 .
You can use them to compute 9*6.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & & & \multicolumn{4}{c|}{ Table 2} \\
\hline 9 & \(*\) & 0 & \(=\) & 0 & & & 6 & \(*\) & 0 & \(=\) & 0 \\
\hline 9 & \(*\) & 1 & \(=\) & 9 & & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 9 & \(*\) & 2 & \(=\) & 18 & & & 6 & \(*\) & 2 & \(=\) & 12 \\
\hline 9 & \(*\) & 3 & \(=\) & 27 & & & 6 & \(*\) & 3 & \(=\) & 18 \\
\hline 9 & \(*\) & 4 & \(=\) & 36 & & & 6 & \(*\) & 4 & \(=\) & 24 \\
\hline 9 & \(*\) & 5 & \(=\) & 45 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline & & & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 9 & \(*\) & 6 & \(=\) & 54 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 9 & \(*\) & 7 & \(=\) & 63 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 9 & \(*\) & 8 & \(=\) & 72 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 9 & \(*\) & 9 & \(=\) & 81 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 9 & \(*\) & 10 & \(=\) & 90 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(9 * 6=54\)
And at the row in table 2 that shows, \(6 * 9=54\)
- \(9 * 6=54\)

Thus, type in 54.

\section*{Scaffold:}

We know,
\(9 * 6=54\)
Now try the original problem again.

What is (-9) * (-6)?

\section*{Algebraic Expression:}
\(\sqrt{54}\)

\section*{Hints:}
- We know,
\(9 * 6=54\)
We need to consider the signs of the factors as well.

Our first factor, -9 , is negative and our second factor, -6 , is negative as well.

We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-9) *(-6)\)
\(=54\)

Type in 54.
22) Problem \#PRABFEQ "PRABFEQ - Multiplication of Integers"

What is \((-3) *(-3)\) ?
Algebraic Expression:
\(\sqrt{ } 9\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
3*3
Algebraic Expression:
\(\sqrt{ } 9\)
Hints:

Below are the multiplication tables of 3 and 3 .
You can use them to compute 3*3.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 3 & \(*\) & 0 & \(=\) & 0 & & 3 & \(*\) & 0 & \(=\) & 0 \\
\hline 3 & \(*\) & 1 & \(=\) & 3 & & 3 & \(*\) & 1 & \(=\) & 3 \\
\hline 3 & \(*\) & 2 & \(=\) & 6 & & 3 & \(*\) & 2 & \(=\) & 6 \\
\hline 3 & \(*\) & 3 & \(=\) & 9 & & 3 & \(*\) & 3 & \(=\) & 9 \\
\hline 3 & \(*\) & 4 & \(=\) & 12 & & 3 & \(*\) & 4 & \(=\) & 12 \\
\hline 3 & \(*\) & 5 & \(=\) & 15 & & 3 & \(*\) & 5 & \(=\) & 15 \\
\hline 3 & \(*\) & 6 & \(=\) & 18 & & 3 & \(*\) & 6 & \(=\) & 18 \\
\hline 3 & \(*\) & 7 & \(=\) & 21 & & 3 & \(*\) & 7 & \(=\) & 21 \\
\hline 3 & \(*\) & 8 & \(=\) & 24 & & 3 & \(*\) & 8 & \(=\) & 24 \\
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 3 & \(*\) & 9 & \(=\) & 27 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 3 & \(*\) & 10 & \(=\) & 30 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(3 * 3=9\)

And at the row in table 2 that shows, \(3 * 3=9\)
- \(3 * 3=9\)

Thus, type in 9.

\section*{Scaffold:}

We know,

Now try the original problem again.

What is (-3) * (-3)?

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)

\section*{Hints:}
- We know,

3 * 3 = 9
We need to consider the signs of the factors as well.

Our first factor, -3 , is negative and our second factor, -3 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-3)\) * \((-3)\)
= 9

Type in 9 .
23) Problem \#PRABFDK "PRABFDK - Multiplication of Integers"

What is (-8) * 6 ?
Algebraic Expression:
\(\sqrt{ }-48\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

8 * 6

\section*{Algebraic Expression:}
\(\sqrt{ } 48\)

\section*{Hints:}

Below are the multiplication tables of 8 and 6 .
You can use them to compute 8*6.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 8 & \(*\) & 0 & \(=\) & 0 & & 6 & \(*\) & 0 & \(=\) & 0 \\
\hline 8 & \(*\) & 1 & \(=\) & 8 & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 8 & \(*\) & 2 & \(=\) & 16 & & 6 & \(*\) & 2 & \(=\) & 12 \\
\hline 8 & \(*\) & 3 & \(=\) & 24 & & 6 & \(*\) & 3 & \(=\) & 18 \\
\hline 8 & \(*\) & 4 & \(=\) & 32 & & 6 & \(*\) & 4 & \(=\) & 24 \\
\hline 8 & \(*\) & 5 & \(=\) & 40 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline 8 & \(*\) & 6 & \(=\) & 48 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 8 & \(*\) & 7 & \(=\) & 56 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 8 & \(*\) & 8 & \(=\) & 64 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 8 & \(*\) & 9 & \(=\) & 72 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 8 & \(*\) & 10 & \(=\) & 80 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(8 * 6=48\)

And at the row in table 2 that shows, \(6 * 8=48\)

Thus, type in 48.

\section*{Scaffold:}

We know,
\(8 * 6=48\)
Now try the original problem again.

What is \((-8) * 6\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-48\)

\section*{Hints:}
- We know,
\(8 * 6=48\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-8) * 6\)
\(=-48\)

Type in -48

\section*{24) Problem \#PRABFDA "PRABFDA - Multiplication of Integers"}

What is (-7) * 5 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-35\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
7 * 5

\section*{Algebraic Expression:}
\(\sqrt{ } 35\)

\section*{Hints:}

Below are the multiplication tables of 7 and 5 .
You can use them to compute 7*5.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 7 & \(*\) & 0 & \(=\) & 0 & & 5 & \(*\) & 0 & \(=\) & 0 \\
\hline 7 & \(*\) & 1 & \(=\) & 7 & & 5 & \(*\) & 1 & \(=\) & 5 \\
\hline 7 & \(*\) & 2 & \(=\) & 14 & & 5 & \(*\) & 2 & \(=\) & 10 \\
\hline 7 & \(*\) & 3 & \(=\) & 21 & & 5 & \(*\) & 3 & \(=\) & 15 \\
\hline 7 & \(*\) & 4 & \(=\) & 28 & & 5 & \(*\) & 4 & \(=\) & 20 \\
\hline 7 & \(*\) & 5 & \(=\) & 35 & & 5 & \(*\) & 5 & \(=\) & 25 \\
\hline 7 & \(*\) & 6 & \(=\) & 42 & & 5 & \(*\) & 6 & \(=\) & 30 \\
\hline 7 & \(*\) & 7 & \(=\) & 49 & & 5 & \(*\) & 7 & \(=\) & 35 \\
\hline 7 & \(*\) & 8 & \(=\) & 56 & & 5 & \(*\) & 8 & \(=\) & 40 \\
\hline 7 & \(*\) & 9 & \(=\) & 63 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 7 & \(*\) & 10 & \(=\) & 70 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(7 * 5=35\)
And at the row in table 2 that shows,

\(5 * 7=35\)
- \(7 * 5=35\)

Thus, type in 35.

\section*{Scaffold:}

We know,
\(7 * 5=35\)
Now try the original problem again.

What is (-7) * 5 ?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-35

\section*{Hints:}
- We know,
\(7 * 5=35\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-

We have, the third case where,


Thus using this rule we get,
\((-7) * 5\)
\(=-35\)


Type in -35
25) Problem \#PRABFDQ "PRABFDQ - Multiplication of Integers"

What is (-3) * 6?
Algebraic Expression:
\(\sqrt{-18}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
3 * 6

\section*{Algebraic Expression:}
\(\sqrt{ } 18\)

\section*{Hints:}
-
Below are the multiplication tables of 3 and 6 .
You can use them to compute 3*6.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 3 & * & 0 & = & 0 & 6 & * & 0 & = & 0 \\
\hline 3 & * & 1 & = & 3 & 6 & * & 1 & = & 6 \\
\hline 3 & * & 2 & = & 6 & 6 & * & 2 & = & 12 \\
\hline 3 & * & 3 & = & 9 & 6 & * & 3 & = & 18 \\
\hline 3 & * & 4 & = & 12 & 6 & * & 4 & = & 24 \\
\hline 3 & * & 5 & - & 15 & 6 & * & 5 & - & 30 \\
\hline 3 & * & 6 & - & 18 & 6 & * & 6 & - & 36 \\
\hline 3 & * & 7 & = & 21 & 6 & * & 7 & = & 42 \\
\hline 3 & * & 8 & = & 24 & 6 & * & 8 & = & 48 \\
\hline 3 & * & 9 & = & 27 & 6 & * & 9 & = & 54 \\
\hline 3 & * & 10 & = & 30 & 6 & * & 10 & = & 60 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,

And at the row in table 2 that shows,
\(6 * 3=18\)
- \(3 * 6=18\)

Thus, type in 18.

\section*{Scaffold:}

We know,
\(3 * 6=18\)
Now try the original problem again.

What is \((-3)\) * 6 ?

\section*{Algebraic Expression:}

\section*{Hints:}
- We know,
\(3 * 6=18\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
```

Algebraic Expression:
$\sqrt{4}$

```

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 2

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
-
Below are the multiplication tables of 2 and 2.
You can use them to compute 2*2.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 2 & * & 0 & = & 0 & 2 & * & 0 & = & 0 \\
\hline 2 & * & 1 & = & 2 & 2 & * & 1 & = & 2 \\
\hline 2 & * & 2 & = & 4 & 2 & * & 2 & = & 4 \\
\hline 2 & * & 3 & \(=\) & 6 & 2 & * & 3 & = & 6 \\
\hline 2 & * & 4 & = & 8 & 2 & , & 4 & = & 8 \\
\hline 2 & * & 5 & = & 10 & 2 & * & 5 & = & 10 \\
\hline 2 & * & 6 & = & 12 & 2 & * & 6 & = & 12 \\
\hline 2 & * & 7 & = & 14 & 2 & * & 7 & = & 14 \\
\hline 2 & * & 8 & = & 16 & 2 & * & 8 & = & 16 \\
\hline 2 & * & 9 & = & 18 & 2 & * & 9 & \(=\) & 18 \\
\hline 2 & * & 10 & = & 20 & 2 & * & 10 & \(=\) & 20 \\
\hline
\end{tabular}
-
 \(2 * 2=4\)

And at the row in table 2 that shows, \(2 * 2=4\)
- 2 * \(2=4\)

Thus, type in 4.

\section*{Scaffold:}

We know,
2 * 2 = 4
Now try the original problem again.

What is \((-2)\) * \((-2)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{ } 4
\]

\section*{Hints:}
- We know,

2 * \(2=4\)
We need to consider the signs of the factors as well.
-
Our first factor, -2 , is negative and our second factor, -2 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-2) *(-2)\)
\(=4\)

Type in 4.

What is 1 * \((-3)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-3\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
1 * 3
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 3\)

\section*{Hints:}

Below are the multiplication tables of 1 and 3.
You can use them to compute 1*3.

-
Look at the row in table 1 that shows,
1 * 3 = 3
And at the row in table 2 that shows, 3 * \(1=3\)
- \(1 * 3=3\)

Thus, type in 3.

\section*{Scaffold:}

We know,
\(1 * 3=3\)

Now try the original problem again.

What is 1 * \((-3)\) ?
Algebraic Expression:
\(\sqrt{ }-3\)

\section*{Hints:}
- We know,
\(1 * 3=3\)
We need to consider the signs of the factors as well.
-

Remember the rule of multiplying signs which says,

-

We have, the second case where,


Thus using this rule we get,
1 * (-3)
\(=-3\)

Type in -3

What is (-3) * 5 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-15\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
3 * 5

\section*{Algebraic Expression:}

15

\section*{Hints:}

Below are the multiplication tables of 3 and 5 .
You can use them to compute 3*5.

-

Look at the row in table 1 that shows,
\(3 * 5=15\)
And at the row in table 2 that shows,
\(5 * 3=15\)
- \(3 * 5=15\)

Thus, type in 15.

\section*{Scaffold:}

We know,

3 * 5 = 15
Now try the original problem again.

What is (-3) * 5 ?

\section*{Algebraic Expression:}

\section*{\(\sqrt{-15}\)}

\section*{Hints:}
- We know,
\(3 * 5=15\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the third case where,


Thus using this rule we get,
\((-3) * 5\)
\(=-15\)

Type in -15

\section*{29) Problem \#PRABFDT "PRABFDT - Multiplication of Integers"}

What is (-7) * 3?

\section*{Algebraic Expression:}
\(\sqrt{ }-21\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
7 * 3

\section*{Algebraic Expression:}
\(\sqrt{ } 21\)

\section*{Hints:}
-
Below are the multiplication tables of 7 and 3.
You can use them to compute 7*3.

-
Look at the row in table 1 that shows,
7 * 3 = 21
And at the row in table 2 that shows,
3*7=21
- 7 * \(3=21\)

Thus, type in 21.

\section*{Scaffold:}

We know,
7 * 3 = 21
Now try the original problem again.

What is (-7) * 3 ?
Algebraic Expression:
\(\sqrt{ }-21\)

\section*{Hints:}
- We know,
\(7 * 3=21\)
We need to consider the signs of the factors as well.
-

Remember the rule of multiplying signs which says,


We have, the third case where,


Thus using this rule we get,
\((-7) * 3\)
\(=-21\)

Type in -21

\section*{30) Problem \#PRABFC8 "PRABFC8 - Multiplication of Integers"}

What is 6 * \((-8)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-48\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
6 * 8

\section*{Algebraic Expression:}
\(\sqrt{ } 48\)

\section*{Hints:}
-
Below are the multiplication tables of 6 and 8 .
You can use them to compute 6*8.


Look at the row in table 1 that shows, \(6 * 8=48\)

And at the row in table 2 that shows, \(8 * 6=48\)
- \(6 * 8=48\)

Thus, type in 48.

\section*{Scaffold:}

We know,
\(6 * 8=48\)
Now try the original problem again.

What is 6 * (-8)?

\section*{Algebraic Expression:}

\section*{\(\sqrt{ }-48\)}

\section*{Hints:}
- We know,
\(6 * 8=48\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
6 * (-8)
\(=-48\)

Type in -48
31) Problem \#PRABFCC "PRABFCC - Multiplication of Integers"

What is 1 * (-5)?

\section*{Algebraic Expression:}
\(\sqrt{-5}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
1 * 5

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
-

Below are the multiplication tables of 1 and 5 .
You can use them to compute 1*5.


Look at the row in table 1 that shows, 1 * 5 = 5

And at the row in table 2 that shows, \(5 * 1=5\)
- \(1 * 5=5\)

Thus, type in 5.

\section*{Scaffold:}

We know,
\(1 * 5=5\)
Now try the original problem again.

What is 1 * (-5)?

\section*{Algebraic Expression:}
\(\sqrt{-5}\)

\section*{Hints:}
- We know,
\(1 * 5=5\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
\(1 *(-5)\)
\(=-5\)

Type in - 5

\section*{32) Problem \#PRABFEE "PRABFEE - Multiplication of Integers"}

What is \((-4)\) * \((-3)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 12\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{4*3}

\section*{Algebraic Expression:}
\(\sqrt{ } 12\)

\section*{Hints:}
-
Below are the multiplication tables of 4 and 3.
You can use them to compute 4*3.


Look at the row in table 1 that shows, \(4 * 3=12\)

And at the row in table 2 that shows,
3 * 4 = 12
- \(4 * 3=12\)

Thus, type in 12.

\section*{Scaffold:}

We know,
\(4 * 3=12\)
Now try the original problem again.

What is \((-4)\) * \((-3)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{12}
\]

\section*{Hints:}
- We know,
\(4 * 3=12\)

We need to consider the signs of the factors as well.
-

Our first factor, -4 , is negative and our second factor, -3 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-4) *(-3)\)
\(=12\)

Type in 12.
33) Problem \#PRABFD8 "PRABFD8 - Multiplication of Integers"

What is \((-5) *(-8)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 40\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{5 * 8}

\section*{Algebraic Expression:}
\[
\sqrt{40}
\]

\section*{Hints:}
-
Below are the multiplication tables of 5 and 8.
You can use them to compute 5*8.


Look at the row in table 1 that shows, \(5 * 8=40\)

And at the row in table 2 that shows, \(8 * 5=40\)
- 5 * \(8=40\)

Thus, type in 40 .

\section*{Scaffold:}

We know,
\(5 * 8=40\)
Now try the original problem again.

What is (-5) * (-8)?
Algebraic Expression:
\[
\sqrt{40}
\]

\section*{Hints:}
- We know,
\(5 * 8=40\)
We need to consider the signs of the factors as well.
-
Our first factor, -5 , is negative and our second factor, -8 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-


- We have, the fourth case where,


Thus using this rule we get,
\((-5) *(-8)\)
\(=40\)

Type in 40 .
34) Problem \#PRABFCT "PRABFCT - Multiplication of Integers"

What is (-2) * 2?

\section*{Algebraic Expression:}
\(\sqrt{-4}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute, 2 * 2

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}

Below are the multiplication tables of 2 and 2.
You can use them to compute 2*2.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 2 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & & 2 & \(*\) & 1 & \(=\) \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & & 2 & \(*\) & 2 & \(=\) \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & & 2 & \(*\) & 3 & \(=\) \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & & 2 & \(*\) & 4 & \(=\) \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & & 2 & \(*\) & 5 & \(=\) \\
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 2 & \(*\) & 6 & \(=\) & 12 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 2 & \(*\) & 7 & \(=\) & 14 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
2 & \(*\) & 8 & \(=\) & 16 & & 2 & \(*\) & 8 & \(=\) & 16 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 2 & \(*\) & 9 & \(=\) & 18 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 2 & \(*\) & 10 & \(=\) & 20 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 2 * 2 = 4

And at the row in table 2 that shows,
\(2 * 2=4\)
- \(2 * 2=4\)

Thus, type in 4.

\section*{Scaffold:}

We know,
\(2 * 2=4\)
Now try the original problem again.

What is \((-2)\) * 2?

\section*{Algebraic Expression:}
\[
\sqrt{ }-4
\]

\section*{Hints:}
- We know,
\(2 * 2=4\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

\(X \longrightarrow=\square\)

-

We have, the third case where,


Thus using this rule we get,
\((-2) * 2\)
\(=-4\)

Type in -4
35) Problem \#PRABFDS "PRABFDS - Multiplication of Integers"

What is (-2) * 10 ?

\section*{Algebraic Expression:}
-20

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 10
 \(\sqrt{ } 20\)

\section*{Hints:}

Below are the multiplication tables of 2 and 10 .
You can use them to compute 2*10.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & \multicolumn{5}{|c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 10 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 10 & \(*\) & 1 & \(=\) & 10 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & 10 & \(*\) & 2 & \(=\) & 20 \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & 10 & \(*\) & 3 & \(=\) & 30 \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 10 & \(*\) & 4 & \(=\) & 40 \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 10 & \(*\) & 5 & \(=\) & 50 \\
\hline
\end{tabular}
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 10 & \(*\) & 6 & \(=\) & 60 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 10 & \(*\) & 7 & \(=\) & 70 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 10 & \(*\) & 8 & \(=\) & 80 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 10 & \(*\) & 9 & \(=\) & 90 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 10 & \(*\) & 10 & \(=\) & 100 \\
\hline
\end{tabular}

Look at the row in table 1 that shows,
2 * \(10=20\)
And at the row in table 2 that shows,
\(10 * 2=20\)
- \(2 * 10=20\)

Thus, type in 20.

\section*{Scaffold:}

We know, \(2 * 10=20\)
Now try the original problem again.

What is \((-2)\) * 10 ?

\section*{Algebraic Expression:}
\[
\sqrt{ }-20
\]

\section*{Hints:}
- We know,
\(2 * 10=20\)
We need to consider the signs of the factors as well.
-


\(+\)


We have, the third case where,


Thus using this rule we get,
\((-2) * 10\)
\(=-20\)

Type in -20
36) Problem \#PRABFD2 "PRABFD2 - Multiplication of Integers"

What is (-10) * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{ } 40\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

Algebraic Expression:
\(\sqrt{ } 40\)

\section*{Hints:}
-
Below are the multiplication tables of 10 and 4.
You can use them to compute 10*4.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 10 & \(*\) & 0 & \(=\) & 0 & & 4 & \(*\) & 0 & \(=\) & 0 \\
\hline 10 & \(*\) & 1 & \(=\) & 10 & & 4 & \(*\) & 1 & \(=\) & 4 \\
\hline 10 & \(*\) & 2 & \(=\) & 20 & & 4 & \(*\) & 2 & \(=\) & 8 \\
\hline 10 & \(*\) & 3 & \(=\) & 30 & & 4 & \(*\) & 3 & \(=\) & 12 \\
\hline 10 & \(*\) & 4 & \(=\) & 40 & & 4 & \(*\) & 4 & \(=\) & 16 \\
\hline & & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline 10 & \(*\) & 5 & \(=\) & 50 & & 4 & \(*\) & 5 & \(=\) & 20 \\
\hline 10 & \(*\) & 6 & \(=\) & 60 & & 4 & \(*\) & 6 & \(=\) & 24 \\
\hline 10 & \(*\) & 7 & \(=\) & 70 & & 4 & \(*\) & 7 & \(=\) & 28 \\
\hline 10 & \(*\) & 8 & \(=\) & 80 & & 4 & \(*\) & 8 & \(=\) & 32 \\
\hline 10 & \(*\) & 9 & \(=\) & 90 & & 4 & \(*\) & 9 & \(=\) & 36 \\
\hline 10 & \(*\) & 10 & \(=\) & 100 & & 4 & \(*\) & 10 & \(=\) & 40 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(10 * 4=40\)

And at the row in table 2 that shows,
\(4 * 10=40\)
- \(10 * 4=40\)

Thus, type in 40.

\section*{Scaffold:}

We know,
\(10 * 4=40\)
Now try the original problem again.

What is \((-10)\) * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{ } 40\)

\section*{Hints:}
- We know,
\(10 * 4=40\)

We need to consider the signs of the factors as well.

Our first factor, -10 , is negative and our second factor, -4 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-10) *(-4)\)
\(=40\)

Type in 40 .
37) Problem \#PRABFCF "PRABFCF - Multiplication of Integers"

What is 2 * (-5)?
Algebraic Expression:
\(\sqrt{-10}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 5

\section*{Algebraic Expression:}

\section*{Hints:}
-
Below are the multiplication tables of 2 and 5 .
You can use them to compute 2*5.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 5 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 5 & \(*\) & 1 & \(=\) & 5 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & 5 & \(*\) & 2 & \(=\) & 10 \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & 5 & \(*\) & 3 & \(=\) & 15 \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 5 & \(*\) & 4 & \(=\) & 20 \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 5 & \(*\) & 5 & \(=\) & 25 \\
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 5 & \(*\) & 6 & \(=\) & 30 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 5 & \(*\) & 7 & \(=\) & 35 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 5 & \(*\) & 8 & \(=\) & 40 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-

Look at the row in table 1 that shows,
2 * 5 = 10
And at the row in table 2 that shows, \(5 * 2=10\)
- \(2 * 5=10\)

Thus, type in 10.

\section*{Scaffold:}
\[
2 * 5=10
\]

Now try the original problem again.

What is 2 * (-5)?

\section*{Algebraic Expression:}
\(\sqrt{ }-10\)

\section*{Hints:}
- We know,
\(2 * 5=10\)
We need to consider the signs of the factors as well.

-
We have, the second case where,


Thus using this rule we get,
2 * (-5)
\(=-10\)

Type in -10

\section*{38) Problem \#PRABFCN "PRABFCN - Multiplication of Integers"}

What is (-3) * 1 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-3\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{Algebraic Expression:}
\(\sqrt{ } 3\)

\section*{Hints:}

Below are the multiplication tables of 3 and 1 .
You can use them to compute 3*1.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{5}{|c|}{ Table 2} \\
\hline 3 & \(*\) & 0 & \(=\) & 0 & & 1 & \(*\) & 0 & \(=\) & 0 \\
\hline 3 & \(*\) & 1 & \(=\) & 3 & & 1 & \(*\) & 1 & \(=\) & 1 \\
\hline 3 & \(*\) & 2 & \(=\) & 6 & & 1 & \(*\) & 2 & \(=\) & 2 \\
\hline 3 & \(*\) & 3 & \(=\) & 9 & & 1 & \(*\) & 3 & \(=\) & 3 \\
\hline 3 & \(*\) & 4 & \(=\) & 12 & & 1 & \(*\) & 4 & \(=\) & 4 \\
\hline 3 & \(*\) & 5 & \(=\) & 15 & & 1 & \(*\) & 5 & \(=\) & 5 \\
\hline 3 & \(*\) & 6 & \(=\) & 18 & & 1 & \(*\) & 6 & \(=\) & 6 \\
\hline 3 & \(*\) & 7 & \(=\) & 21 & & 1 & \(*\) & 7 & \(=\) & 7 \\
\hline 3 & \(*\) & 8 & \(=\) & 24 & & 1 & \(*\) & 8 & \(=\) & 8 \\
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 1 & \(*\) & 9 & \(=\) & 9 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 1 & \(*\) & 10 & \(=\) & 10 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(3 * 1=3\)

And at the row in table 2 that shows,
\(1 * 3=3\)
- \(3 * 1=3\)

Thus, type in 3.

\section*{Scaffold:}

We know,
3 * \(1=3\)
Now try the original problem again.

What is (-3) * 1 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-3\)

\section*{Hints:}
- We know,

3 * \(1=3\)
We need to consider the signs of the factors as well.

-
We have, the third case where,


Thus using this rule we get,
\((-3) * 1\)
\(=-3\)

Type in -3
39) Problem \#PRABFCD "PRABFCD - Multiplication of Integers"

What is 7 * (-7)?
Algebraic Expression:
\(\sqrt{-49}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

7 * 7

\section*{Algebraic Expression:}
\(\sqrt{ } 49\)

\section*{Hints:}

Below are the multiplication tables of 7 and 7.
You can use them to compute 7*7.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 7 & \(*\) & 0 & \(=\) & 0 & & 7 & \(*\) & 0 & \(=\) & 0 \\
\hline 7 & \(*\) & 1 & \(=\) & 7 & & 7 & \(*\) & 1 & \(=\) & 7 \\
\hline 7 & \(*\) & 2 & \(=\) & 14 & & 7 & \(*\) & 2 & \(=\) & 14 \\
\hline 7 & \(*\) & 3 & \(=\) & 21 & & 7 & \(*\) & 3 & \(=\) & 21 \\
\hline 7 & \(*\) & 4 & \(=\) & 28 & & 7 & \(*\) & 4 & \(=\) & 28 \\
\hline 7 & \(*\) & 5 & \(=\) & 35 & & 7 & \(*\) & 5 & \(=\) & 35 \\
\hline 7 & \(*\) & 6 & \(=\) & 42 & & 7 & \(*\) & 6 & \(=\) & 42 \\
\hline 7 & \(*\) & 7 & \(=\) & 49 & & 7 & \(*\) & 7 & \(=\) & 49 \\
\hline 7 & \(*\) & 8 & \(=\) & 56 & & 7 & \(*\) & 8 & \(=\) & 56 \\
\hline 7 & \(*\) & 9 & \(=\) & 63 & & 7 & \(*\) & 9 & \(=\) & 63 \\
\hline 7 & \(*\) & 10 & \(=\) & 70 & & 7 & \(*\) & 10 & \(=\) & 70 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(7 * 7=49\)

And at the row in table 2 that shows, \(7 * 7=49\)

Thus, type in 49.

\section*{Scaffold:}

We know,
\(7 * 7=49\)
Now try the original problem again.

What is 7 * (-7)?

\section*{Algebraic Expression:}
\(\sqrt{-49}\)

\section*{Hints:}
- We know,
\(7 * 7=49\)
We need to consider the signs of the factors as well.

-
We have, the second case where,


Thus using this rule we get,
7 * (-7)
\(=-49\)

Type in -49
40) Problem \#PRABFEM "PRABFEM - Multiplication of Integers"

What is \((-4) *(-2)\) ?
Algebraic Expression:
\(\sqrt{ } 8\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{4 * 2}

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}

Below are the multiplication tables of 4 and 2.
You can use them to compute 4*2.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{5}{|c|}{ Table 2} \\
\hline 4 & \(*\) & 0 & \(=\) & 0 & & 2 & \(*\) & 0 & \(=\) & 0 \\
\hline 4 & \(*\) & 1 & \(=\) & 4 & & 2 & \(*\) & 1 & \(=\) & 2 \\
\hline 4 & \(*\) & 2 & \(=\) & 8 & & 2 & \(*\) & 2 & \(=\) & 4 \\
\hline 4 & \(*\) & 3 & \(=\) & 12 & & 2 & \(*\) & 3 & \(=\) & 6 \\
\hline 4 & \(*\) & 4 & \(=\) & 16 & & 2 & \(*\) & 4 & \(=\) & 8 \\
\hline 4 & \(*\) & 5 & \(=\) & 20 & & 2 & \(*\) & 5 & \(=\) & 10 \\
\hline 4 & \(*\) & 6 & \(=\) & 24 & & 2 & \(*\) & 6 & \(=\) & 12 \\
\hline 4 & \(*\) & 7 & \(=\) & 28 & & 2 & \(*\) & 7 & \(=\) & 14 \\
\hline 4 & \(*\) & 8 & \(=\) & 32 & & 2 & \(*\) & 8 & \(=\) & 16 \\
\hline 4 & \(*\) & 9 & \(=\) & 36 & & 2 & \(*\) & 9 & \(=\) & 18 \\
\hline 4 & \(*\) & 10 & \(=\) & 40 & & 2 & \(*\) & 10 & \(=\) & 20 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(4 * 2=8\)

And at the row in table 2 that shows,
\(2 * 4=8\)
- \(4 * 2=8\)

Thus, type in 8.

\section*{Scaffold:}

We know,
\(4 * 2=8\)
Now try the original problem again.

What is (-4) * (-2)?

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}
- We know,
\(4 * 2=8\)
We need to consider the signs of the factors as well.

Our first factor, -4 , is negative and our second factor, -2 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-4) *(-2)\)
\(=8\)

Type in 8.
41) Problem \#PRABFEH "PRABFEH - Multiplication of Integers"

What is \((-1) *(-4)\) ?
Algebraic Expression:
\(\sqrt{ } 4\)
Scaffold:

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
1*4
Algebraic Expression:
\(\sqrt{ } 4\)

\section*{Hints:}
-
Below are the multiplication tables of 1 and 4.
You can use them to compute 1*4.

-
 \(1 * 4=4\)

And at the row in table 2 that shows,
4 * 1 = 4
- \(1 * 4=4\)

Thus, type in 4.

\section*{Scaffold:}

We know,
1 * 4 = 4
Now try the original problem again.

What is ( -1 ) * (-4)?

\section*{Algebraic Expression:}
\[
\sqrt{ } 4
\]

\section*{Hints:}
- We know,
\(1 * 4=4\)
We need to consider the signs of the factors as well.
-
Our first factor, -1 , is negative and our second factor, -4 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-1) *(-4)\)
\(=4\)

Type in 4.

What is 1 * (-7)?

\section*{Algebraic Expression:}
\(\sqrt{ }-7\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
1 * 7
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 7\)

\section*{Hints:}

Below are the multiplication tables of 1 and 7.
You can use them to compute 1*7.

-
Look at the row in table 1 that shows, 1 * 7 = 7

And at the row in table 2 that shows, 7 * \(1=7\)
- 1 * \(7=7\)

Thus, type in 7.

\section*{Scaffold:}

We know,
\(1 * 7=7\)

Now try the original problem again.

What is 1 * (-7)?
Algebraic Expression:
」 -7

\section*{Hints:}
- We know,

1 * 7 = 7
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the second case where,


Thus using this rule we get,
1 * (-7)
\(=-7\)

Type in - 7

What is (-4) * 4?

\section*{Algebraic Expression:}
\(\sqrt{ }-16\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(4 * 4\)

\section*{Algebraic Expression:}

16

\section*{Hints:}

Below are the multiplication tables of 4 and 4.
You can use them to compute 4*4.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline & \multicolumn{5}{|c|}{Table 1} & & \multicolumn{5}{|c|}{Table 2} & & \\
\hline & 4 & * & 0 & \(=\) & 0 & & 4 & * & 0 & \(=\) & 0 & & \\
\hline & 4 & * & 1 & \(=\) & 4 & & 4 & * & 1 & \(=\) & 4 & & \\
\hline & 4 & * & 2 & \(=\) & 8 & & 4 & * & 2 & \(=\) & 8 & & \\
\hline & 4 & * & 3 & \(=\) & 12 & & 4 & * & 3 & \(=\) & 12 & & \\
\hline & 4 & * & 4 & \(=\) & 16 & & 4 & * & 4 & = & 16 & & \\
\hline & 4 & * & 5 & \(=\) & 20 & & 4 & * & 5 & = & 20 & & \\
\hline & 4 & * & 6 & \(=\) & 24 & & 4 & * & 6 & = & 24 & & \\
\hline & 4 & * & 7 & \(=\) & 28 & & 4 & * & 7 & \(=\) & 28 & & \\
\hline - & 4 & * & 8 & \(=\) & 32 & & 4 & * & 8 & \(=\) & 32 & & - \({ }^{\text {c }}\) \\
\hline & 4 & * & 9 & \(=\) & 36 & & 4 & * & 9 & \(=\) & 36 & & \\
\hline & 4 & * & 10 & \(=\) & 40 & & 4 & * & 10 & \(=\) & 40 & & \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(4 * 4=16\)

And at the row in table 2 that shows,
\(4 * 4=16\)
- \(4 * 4=16\)

Thus, type in 16.

\section*{Scaffold:}

We know,
\(4 * 4=16\)
Now try the original problem again.

What is (-4) * 4?

\section*{Algebraic Expression:}

\section*{\(\sqrt{-16}\)}

\section*{Hints:}
- We know,
\(4 * 4=16\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the third case where,


Thus using this rule we get,
\((-4) * 4\)
\(=-16\)

\section*{44) Problem \#PRABFDJ "PRABFDJ - Multiplication of Integers"}

What is (-1) * 9?

\section*{Algebraic Expression:}
\(\sqrt{ }-9\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
1 * 9

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)
Hints:
-
Below are the multiplication tables of 1 and 9 .
You can use them to compute 1*9.

-
Look at the row in table 1 that shows,
1 * 9 = 9
And at the row in table 2 that shows,
\(9 * 1=9\)
- \(1 * 9=9\)

Thus, type in 9.

\section*{Scaffold:}

We know,
\(1 * 9=9\)
Now try the original problem again.

What is \((-1) * 9\) ?
Algebraic Expression:
\(\sqrt{ }-9\)

\section*{Hints:}
- We know,
\(1 * 9=9\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the third case where,


Thus using this rule we get,
\((-1) * 9\)
\(=-9\)

Type in -9
45) Problem \#PRABFCP "PRABFCP - Multiplication of Integers"

What is (-4) * 8?

\section*{Algebraic Expression:}

ง -32

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(4 * 8\)

\section*{Algebraic Expression:}
\(\sqrt{ } 32\)

\section*{Hints:}
-
Below are the multiplication tables of 4 and 8.
You can use them to compute \(4 * 8\).

-
Look at the row in table 1 that shows, \(4 * 8=32\)

And at the row in table 2 that shows, \(8 * 4=32\)
- 4 * \(8=32\)

Thus, type in 32.

\section*{Scaffold:}

We know,
\(4 * 8=32\)
Now try the original problem again.

What is (-4) * 8?

\section*{Algebraic Expression:}
\[
\sqrt{ }-32
\]

\section*{Hints:}
- We know,
\(4 * 8=32\)
We need to consider the signs of the factors as well.
-

Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-4) * 8\)
\(=-32\)

Type in -32

\section*{46) Problem \#PRABFED "PRABFED - Multiplication of Integers"}

What is \((-10) *(-10)\) ?

\section*{Algebraic Expression:}

100

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
10 * 10

\section*{Algebraic Expression:}
\(\sqrt{ } 100\)

\section*{Hints:}

Below are the multiplication tables of 10 and 10 .
You can use them to compute \(10 * 10\).


Look at the row in table 1 that shows, 10 * \(10=100\)

And at the row in table 2 that shows, 10 * \(10=100\)
- \(10 * 10=100\)

Thus, type in 100.

\section*{Scaffold:}

We know,
10 * 10 = 100
Now try the original problem again.

What is \((-10)\) * \((-10)\) ?
Algebraic Expression:
100

\section*{Hints:}
- We know,
\(10 * 10=100\)
We need to consider the signs of the factors as well.
-

Our first factor, -10 , is negative and our second factor, -10 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-10) *(-10)\)
\(=100\)

Type in 100 .
47) Problem \#PRABFCU "PRABFCU - Multiplication of Integers"

What is (-10) * 3?

\section*{Algebraic Expression:}
\(\sqrt{-30}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
10 * 3
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 30\)

\section*{Hints:}

Below are the multiplication tables of 10 and 3.
You can use them to compute 10*3.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 10 & * & 0 & = & 0 & 3 & * & 0 & \(=\) & 0 \\
\hline 10 & * & 1 & = & 10 & 3 & * & 1 & = & 3 \\
\hline 10 & * & 2 & \(=\) & 20 & 3 & * & 2 & = & 6 \\
\hline 10 & * & 3 & = & 30 & 3 & * & 3 & = & 9 \\
\hline 10 & * & 4 & \(=\) & 40 & 3 & * & 4 & = & 12 \\
\hline 10 & * & 5 & = & 50 & 3 & * & 5 & = & 15 \\
\hline 10 & * & 6 & \(=\) & 60 & 3 & * & 6 & = & 18 \\
\hline 10 & * & 7 & = & 70 & 3 & * & 7 & = & 21 \\
\hline 10 & * & 8 & = & 80 & 3 & * & 8 & = & 24 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
10 & \(*\) & 9 & \(=\) & 90 & & 3 & \(*\) & 9 & \(=\) & 27 \\
\hline 10 & \(*\) & 10 & \(=\) & 100 & & 3 & \(*\) & 10 & \(=\) & 30 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(10 * 3=30\)

And at the row in table 2 that shows,
\(3 * 10=30\)
- \(10 * 3=30\)

Thus, type in 30.

\section*{Scaffold:}

We know,
\(10 * 3=30\)
Now try the original problem again.

What is (-10) * 3?

\section*{Algebraic Expression:}
\[
\sqrt{-30}
\]

\section*{Hints:}
- We know, \(10 * 3\) = 30

We need to consider the signs of the factors as well.

Remember the rule of multiplying signs which says,


\(x-\square\)


We have, the third case where,


Thus using this rule we get,
\((-10) * 3\)
\(=-30\)

Type in -30
48) Problem \#PRABFCQ "PRABFCQ - Multiplication of Integers"

What is (-5) * 1 ?

\section*{Algebraic Expression:}
\(\sqrt{-5}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
5 * 1
\]
 \(\sqrt{ } 5\)

\section*{Hints:}

Below are the multiplication tables of 5 and 1.
You can use them to compute 5*1.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{5}{|c|}{ Table 2 } \\
\hline 5 & \(*\) & 0 & \(=\) & 0 & & 1 & \(*\) & 0 & \(=\) & 0 \\
\hline 5 & \(*\) & 1 & \(=\) & 5 & & 1 & \(*\) & 1 & \(=\) & 1 \\
\hline 5 & \(*\) & 2 & \(=\) & 10 & & 1 & \(*\) & 2 & \(=\) & 2 \\
\hline 5 & \(*\) & 3 & \(=\) & 15 & & 1 & \(*\) & 3 & \(=\) & 3 \\
\hline 5 & \(*\) & 4 & \(=\) & 20 & & 1 & \(*\) & 4 & \(=\) & 4 \\
\hline 5 & \(*\) & 5 & \(=\) & 25 & & 1 & \(*\) & 5 & \(=\) & 5 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 5 & \(*\) & 6 & \(=\) & 30 & & 1 & \(*\) & 6 & \(=\) & 6 \\
\hline 5 & \(*\) & 7 & \(=\) & 35 & & 1 & \(*\) & 7 & \(=\) & 7 \\
\hline 5 & \(*\) & 8 & \(=\) & 40 & & 1 & \(*\) & 8 & \(=\) & 8 \\
\hline 5 & \(*\) & 9 & \(=\) & 45 & & 1 & \(*\) & 9 & \(=\) & 9 \\
\hline 5 & \(*\) & 10 & \(=\) & 50 & & 1 & \(*\) & 10 & \(=\) & 10 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(5 * 1=5\)

And at the row in table 2 that shows,
\(1 * 5=5\)
- \(5 * 1=5\)

Thus, type in 5.

\section*{Scaffold:}

We know,
5 * 1 = 5
Now try the original problem again.

What is (-5) * 1 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-5\)

\section*{Hints:}
- We know,
\(5 * 1=5\)
We need to consider the signs of the factors as well.
-



We have, the third case where,


Thus using this rule we get,
\((-5) * 1\)
\(=-5\)

Type in - 5

\section*{49) Problem \#PRABFDC "PRABFDC - Multiplication of Integers"}

What is ( -1 ) * 9 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-9\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{Algebraic Expression:}
\(\sqrt{9}\)

\section*{Hints:}

Below are the multiplication tables of 1 and 9 .
You can use them to compute 1*9.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{5}{|c|}{ Table 2} \\
\hline 1 & \(*\) & 0 & \(=\) & 0 & & 9 & \(*\) & 0 & \(=\) & 0 \\
\hline 1 & \(*\) & 1 & \(=\) & 1 & & 9 & \(*\) & 1 & \(=\) & 9 \\
\hline 1 & \(*\) & 2 & \(=\) & 2 & & 9 & \(*\) & 2 & \(=\) & 18 \\
\hline 1 & \(*\) & 3 & \(=\) & 3 & & 9 & \(*\) & 3 & \(=\) & 27 \\
\hline & & & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 1 & \(*\) & 4 & \(=\) & 4 & & 9 & \(*\) & 4 & \(=\) & 36 \\
\hline 1 & \(*\) & 5 & \(=\) & 5 & & 9 & \(*\) & 5 & \(=\) & 45 \\
\hline 1 & \(*\) & 6 & \(=\) & 6 & & 9 & \(*\) & 6 & \(=\) & 54 \\
\hline 1 & \(*\) & 7 & \(=\) & 7 & & 9 & \(*\) & 7 & \(=\) & 63 \\
\hline 1 & \(*\) & 8 & \(=\) & 8 & & 9 & \(*\) & 8 & \(=\) & 72 \\
\hline 1 & \(*\) & 9 & \(=\) & 9 & & 9 & \(*\) & 9 & \(=\) & 81 \\
\hline 1 & \(*\) & 10 & \(=\) & 10 & & 9 & \(*\) & 10 & \(=\) & 90 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(1 * 9=9\)

And at the row in table 2 that shows,
\(9 * 1=9\)
- \(1 * 9=9\)

Thus, type in 9.

\section*{Scaffold:}

We know,
\(1 * 9=9\)
Now try the original problem again.

What is (-1) * 9?

\section*{Algebraic Expression:}
\(\sqrt{-9}\)

\section*{Hints:}
- We know,
\(1 * 9=9\)

We need to consider the signs of the factors as well.

-
We have, the third case where,


Thus using this rule we get,
\((-1) * 9\)
\(=-9\)

Type in -9
50) Problem \#PRABFEN "PRABFEN - Multiplication of Integers"

What is (-9) * (-4)?
Algebraic Expression:
\(\sqrt{36}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{9 * 4}

\section*{Algebraic Expression:}
\(\sqrt{ } 36\)

\section*{Hints:}

Below are the multiplication tables of 9 and 4 .
You can use them to compute 9*4.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 9 & \(*\) & 0 & \(=\) & 0 & & 4 & \(*\) & 0 & \(=\) & 0 \\
\hline 9 & \(*\) & 1 & \(=\) & 9 & & 4 & \(*\) & 1 & \(=\) & 4 \\
\hline 9 & \(*\) & 2 & \(=\) & 18 & & 4 & \(*\) & 2 & \(=\) & 8 \\
\hline 9 & \(*\) & 3 & \(=\) & 27 & & 4 & \(*\) & 3 & \(=\) & 12 \\
\hline 9 & \(*\) & 4 & \(=\) & 36 & & 4 & \(*\) & 4 & \(=\) & 16 \\
\hline 9 & \(*\) & 5 & \(=\) & 45 & & 4 & \(*\) & 5 & \(=\) & 20 \\
\hline 9 & \(*\) & 6 & \(=\) & 54 & & 4 & \(*\) & 6 & \(=\) & 24 \\
\hline 9 & \(*\) & 7 & \(=\) & 63 & & 4 & \(*\) & 7 & \(=\) & 28 \\
\hline 9 & \(*\) & 8 & \(=\) & 72 & & 4 & \(*\) & 8 & \(=\) & 32 \\
\hline 9 & \(*\) & 9 & \(=\) & 81 & & 4 & \(*\) & 9 & \(=\) & 36 \\
\hline 9 & \(*\) & 10 & \(=\) & 90 & & 4 & \(*\) & 10 & \(=\) & 40 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(9 * 4=36\)
And at the row in table 2 that shows,
\(4 * 9=36\)
- \(9 * 4=36\)

Thus, type in 36.

\section*{Scaffold:}

We know,
9 * \(4=36\)
Now try the original problem again.

What is (-9) * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{36}\)

\section*{Hints:}
- We know,
\(9 * 4=36\)
We need to consider the signs of the factors as well.

Our first factor, -9 , is negative and our second factor, -4 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-9) *(-4)\)
\(=36\)

Type in 36.

\section*{51) Problem \#PRABFEB "PRABFEB - Multiplication of Integers"}

What is \((-3) *(-8)\) ?
Algebraic Expression:
\(\sqrt{24}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{3 * 8}

\section*{Algebraic Expression:}
\(\sqrt{24}\)

\section*{Hints:}
-
Below are the multiplication tables of 3 and 8.
You can use them to compute 3*8.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 3 & * & 0 & = & 0 & 8 & * & 0 & = & 0 \\
\hline 3 & * & 1 & = & 3 & 8 & * & 1 & = & 8 \\
\hline 3 & * & 2 & = & 6 & 8 & * & 2 & - & 16 \\
\hline 3 & * & 3 & = & 9 & 8 & * & 3 & = & 24 \\
\hline 3 & * & 4 & = & 12 & 8 & * & 4 & = & 32 \\
\hline 3 & * & 5 & = & 15 & 8 & * & 5 & = & 40 \\
\hline 3 & * & 6 & = & 18 & 8 & * & 6 & = & 48 \\
\hline 3 & * & 7 & = & 21 & 8 & * & 7 & = & 56 \\
\hline 3 & * & 8 & = & 24 & 8 & * & 8 & = & 64 \\
\hline 3 & * & 9 & = & 27 & 8 & * & 9 & = & 72 \\
\hline 3 & * & 10 & = & 30 & 8 & * & 10 & = & 80 \\
\hline
\end{tabular}
-
 \(3 * 8=24\)

And at the row in table 2 that shows, \(8 * 3=24\)
- \(3 * 8=24\)

Thus, type in 24.

\section*{Scaffold:}

We know,
3 * \(8=24\)
Now try the original problem again.

What is (-3) * (-8)?

\section*{Algebraic Expression:}

\section*{Hints:}
- We know,
\(3 * 8=24\)
We need to consider the signs of the factors as well.
-
Our first factor, -3 , is negative and our second factor, -8 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-3)\) * \((-8)\)
\(=24\)

Type in 24.

What is (-6) * 3?

\section*{Algebraic Expression:}
\(\sqrt{ }-18\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
6 * 3

\section*{Algebraic Expression:}

18

\section*{Hints:}

Below are the multiplication tables of 6 and 3 .
You can use them to compute 6*3.

-
Look at the row in table 1 that shows, \(6 * 3=18\)

And at the row in table 2 that shows,
\(3 * 6=18\)
- 6 * \(3=18\)

Thus, type in 18.

\section*{Scaffold:}

We know,
\(6 * 3=18\)

Now try the original problem again.

What is (-6) * 3?
Algebraic Expression:
\(\sqrt{ }-18\)

\section*{Hints:}
- We know,

6 * 3 = 18
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-


Thus using this rule we get,
\((-6) * 3\)
\(=-18\)

\section*{53) Problem \#PRABFEF "PRABFEF - Multiplication of Integers"}

What is \((-6) *(-2)\) ?

\section*{Algebraic Expression:}

\section*{12}

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
6 * 2
Algebraic Expression:
12

\section*{Hints:}

Below are the multiplication tables of 6 and 2 .
You can use them to compute 6*2.

-
Look at the row in table 1 that shows,
\(6 * 2=12\)
And at the row in table 2 that shows,
\(2 * 6=12\)
- \(6 * 2=12\)

Thus, type in 12.

\section*{Scaffold:}

We know,
\(6 * 2=12\)
Now try the original problem again.

What is (-6) * (-2)?

\section*{Algebraic Expression:}
\(\sqrt{12}\)

\section*{Hints:}
- We know, \(6 * 2=12\)

We need to consider the signs of the factors as well.
-
Our first factor, -6 , is negative and our second factor, -2 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

- We have, the fourth case where,


Thus using this rule we get,
\((-6) *(-2)\)
\(=12\)

Type in 12.
54) Problem \#PRABFEK "PRABFEK - Multiplication of Integers"

What is \((-7) *(-3)\) ?

\section*{Algebraic Expression:}

21

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
7*3

\section*{Algebraic Expression:}


\section*{Hints:}
-
Below are the multiplication tables of 7 and 3.
You can use them to compute 7*3.


Look at the row in table 1 that shows, \(7 * 3=21\)

And at the row in table 2 that shows,
\(3 * 7=21\)
- \(7 * 3=21\)

Thus, type in 21.

\section*{Scaffold:}

We know,
\(7 * 3=21\)
Now try the original problem again.

What is \((-7) *(-3)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{21}
\]

\section*{Hints:}
- We know,
\(7 * 3=21\)
We need to consider the signs of the factors as well.
-

Our first factor, -7 , is negative and our second factor, -3 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-7) *(-3)\)
\(=21\)

Type in 21.
55) Problem \#PRABFC4 "PRABFC4 - Multiplication of Integers"

What is 2 * \((-5)\) ?

\section*{Algebraic Expression:}
\(\sqrt{-10}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 5

\section*{Algebraic Expression:}
\(\sqrt{ } 10\)

\section*{Hints:}
-
Below are the multiplication tables of 2 and 5 .
You can use them to compute 2*5.


Look at the row in table 1 that shows, 2 * 5 = 10

And at the row in table 2 that shows, 5 * 2 = 10
- 2 * \(5=10\)

Thus, type in 10.

\section*{Scaffold:}

We know,
2 * 5 = 10
Now try the original problem again.

What is 2 * (-5)?

\section*{Algebraic Expression:}
\[
\sqrt{ }-10
\]

\section*{Hints:}
- We know, 2 * \(5=10\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

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-
We have, the second case where,


Thus using this rule we get,

2 * (-5)
\(=-10\)

Type in -10
56) Problem \#PRABFCM "PRABFCM - Multiplication of Integers"

What is (-2) * 9 ?

\section*{Algebraic Expression:}
\(\sqrt{-18}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
2 \text { * } 9
\]

\section*{Algebraic Expression:}

18

\section*{Hints:}

Below are the multiplication tables of 2 and 9 .
You can use them to compute 2*9.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{12}{*}{https://www.ass} & \multicolumn{5}{|l|}{stmeatblebeg/Auild/print/se} & \multirow[t]{2}{*}{quence/8039} & \multicolumn{5}{|l|}{4? Tatablechtigkop_scaf} & \multirow[t]{12}{*}{fralse\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op__uggies=false\&op_sections=false\&short_answers=false} \\
\hline & 2 & * & 0 & \(=\) & 0 & & 9 & * & 0 & \(=\) & 0 & \\
\hline & 2 & * & 1 & \(=\) & 2 & & 9 & * & 1 & \(=\) & 9 & \\
\hline & 2 & * & 2 & \(=\) & 4 & & 9 & * & 2 & \(=\) & 18 & \\
\hline & 2 & * & 3 & \(=\) & 6 & & 9 & * & 3 & \(=\) & 27 & \\
\hline & 2 & * & 4 & \(=\) & 8 & & 9 & * & 4 & \(=\) & 36 & \\
\hline & 2 & * & 5 & \(=\) & 10 & & 9 & * & 5 & \(=\) & 45 & \\
\hline & 2 & * & 6 & \(=\) & 12 & & 9 & * & 6 & \(=\) & 54 & \\
\hline & 2 & * & 7 & \(=\) & 14 & & 9 & * & 7 & \(=\) & 63 & \\
\hline & 2 & * & 8 & \(=\) & 16 & & 9 & * & 8 & \(=\) & 72 & \\
\hline & 2 & * & 9 & \(=\) & 18 & & 9 & * & 9 & \(=\) & 81 & \\
\hline & 2 & * & 10 & \(=\) & 20 & & 9 & * & 10 & \(=\) & 90 & \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(2 * 9=18\)

And at the row in table 2 that shows, \(9 * 2=18\)
- \(2 * 9=18\)

Thus, type in 18.

\section*{Scaffold:}

We know,
2 * 9 = 18
Now try the original problem again.

What is \((-2) * 9\) ?
Algebraic Expression:
\[
\sqrt{~-18}
\]

\section*{Hints:}
- We know,
\(2 * 9=18\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the third case where,


Thus using this rule we get,
\((-2) * 9\)
\(=-18\)

Type in -18

\section*{57) Problem \#PRABFCY "PRABFCY - Multiplication of Integers"}

What is 7 * (-9)?

\section*{Algebraic Expression:}
\(\sqrt{-63}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
7 \text { *9 }
\]

\section*{Algebraic Expression:}


Hints:
-
Below are the multiplication tables of 7 and 9 .
You can use them to compute 7*9.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 7 & * & 0 & = & 0 & 9 & * & 0 & = & 0 \\
\hline 7 & * & 1 & = & 7 & 9 & * & 1 & = & 9 \\
\hline 7 & * & 2 & = & 14 & 9 & * & 2 & = & 18 \\
\hline 7 & * & 3 & = & 21 & 9 & * & 3 & = & 27 \\
\hline 7 & * & 4 & = & 28 & 9 & * & 4 & = & 36 \\
\hline 7 & * & 5 & = & 35 & 9 & * & 5 & = & 45 \\
\hline 7 & * & 6 & = & 42 & 9 & * & 6 & = & 54 \\
\hline 7 & * & 7 & = & 49 & 9 & * & 7 & - & 63 \\
\hline 7 & * & 8 & = & 56 & 9 & * & 8 & = & 72 \\
\hline 7 & * & 9 & = & 63 & 9 & * & 9 & = & 81 \\
\hline 7 & * & 10 & = & 70 & 9 & * & 10 & = & 90 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(7 * 9=63\)

And at the row in table 2 that shows, \(9 * 7=63\)
- \(7 * 9=63\)

Thus, type in 63.

\section*{Scaffold:}

We know,
7 * \(9=63\)
Now try the original problem again.

What is 7 * (-9)?
Algebraic Expression:
\[
\sqrt{ }-63
\]

\section*{Hints:}
- We know,

7 * 9 = 63
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,




We have, the second case where,


Thus using this rule we get,
7 * (-9)
\(=-63\)

Type in -63
58) Problem \#PRABFES "PRABFES - Multiplication of Integers"

What is (-5) * \((-3)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 15\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{5 * 3}

\section*{Algebraic Expression:}
\(\sqrt{ } 15\)

\section*{Hints:}
-
Below are the multiplication tables of 5 and 3.
You can use them to compute 5*3.


Look at the row in table 1 that shows, 5 * 3 = 15

And at the row in table 2 that shows, 3 * 5 = 15
- 5 * \(3=15\)

Thus, type in 15.

\section*{Scaffold:}

We know,
5 * 3 = 15
Now try the original problem again.

What is (-5) * (-3)?
Algebraic Expression:
\(\sqrt{ } 15\)

\section*{Hints:}
- We know,
\(5 * 3=15\)
We need to consider the signs of the factors as well.
-
Our first factor, -5 , is negative and our second factor, -3 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-


- We have, the fourth case where,


Thus using this rule we get,
\((-5) *(-3)\)
\(=15\)

Type in 15.

\section*{59) Problem \#PRABFD4 "PRABFD4 - Multiplication of Integers"}

What is \((-2) *(-8)\) ?

\section*{Algebraic Expression:}
\(\sqrt{16}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute, 2 * 8

\section*{Algebraic Expression:}

16

\section*{Hints:}

Below are the multiplication tables of 2 and 8.
You can use them to compute 2*8.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 8 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 8 & \(*\) & 1 & \(=\) & 8 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & 8 & \(*\) & 2 & \(=\) & 16 \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & 8 & \(*\) & 3 & \(=\) & 24 \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 8 & \(*\) & 4 & \(=\) & 32 \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 8 & \(*\) & 5 & \(=\) & 40 \\
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 8 & \(*\) & 6 & \(=\) & 48 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 8 & \(*\) & 7 & \(=\) & 56 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 8 & \(*\) & 8 & \(=\) & 64 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|l|l|l|l|l|l|}
\hline 2 & \(*\) & 9 & \(=\) & 18 & & & 8 & \(*\) & 9 & \(=\) \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 8 & \(*\) & 10 & \(=\) & 80 \\
\hline
\end{tabular}
-

Look at the row in table 1 that shows, \(2 * 8=16\)

And at the row in table 2 that shows, \(8 * 2=16\)
- \(2 * 8=16\)

Thus, type in 16.

\section*{Scaffold:}

We know,
2 * \(8=16\)
Now try the original problem again.

What is \((-2)\) * \((-8)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 16\)

\section*{Hints:}
- We know,
\(2 * 8=16\)
We need to consider the signs of the factors as well.
-
Our first factor, -2 , is negative and our second factor, -8 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-2)\) * \((-8)\)
\(=16\)

Type in 16.
60) Problem \#PRABFET "PRABFET - Multiplication of Integers"

What is \((-9) *(-4)\) ?
Algebraic Expression:
\(\sqrt{ } 36\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
9 * 4
Algebraic Expression:
\(\sqrt{36}\)

\section*{Hints:}

Below are the multiplication tables of 9 and 4 .
You can use them to compute 9*4.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 9 & \(*\) & 0 & \(=\) & 0 & & 4 & \(*\) & 0 & \(=\) & 0 \\
\hline 9 & \(*\) & 1 & \(=\) & 9 & & 4 & \(*\) & 1 & \(=\) & 4 \\
\hline 9 & \(*\) & 2 & \(=\) & 18 & & 4 & \(*\) & 2 & \(=\) & 8 \\
\hline 9 & \(*\) & 3 & \(=\) & 27 & & 4 & \(*\) & 3 & \(=\) & 12 \\
\hline 9 & \(*\) & 4 & \(=\) & 36 & & 4 & \(*\) & 4 & \(=\) & 16 \\
\hline 9 & \(*\) & 5 & \(=\) & 45 & & 4 & \(*\) & 5 & \(=\) & 20 \\
\hline 9 & \(*\) & 6 & \(=\) & 54 & & 4 & \(*\) & 6 & \(=\) & 24 \\
\hline 9 & \(*\) & 7 & \(=\) & 63 & & 4 & \(*\) & 7 & \(=\) & 28 \\
\hline 9 & \(*\) & 8 & \(=\) & 72 & & 4 & \(*\) & 8 & \(=\) & 32 \\
\hline 9 & \(*\) & 9 & \(=\) & 81 & & 4 & \(*\) & 9 & \(=\) & 36 \\
\hline 9 & \(*\) & 10 & \(=\) & 90 & & 4 & \(*\) & 10 & \(=\) & 40 \\
\hline
\end{tabular}
-

Look at the row in table 1 that shows,
\(9 * 4=36\)

And at the row in table 2 that shows, \(4 * 9=36\)
- \(9 * 4=36\)

Thus, type in 36.

\section*{Scaffold:}

We know,

Now try the original problem again.

What is (-9) * (-4)?

\section*{Algebraic Expression:}

36

\section*{Hints:}
- We know,
\(9 * 4=36\)

We need to consider the signs of the factors as well.

Our first factor, -9 , is negative and our second factor, -4 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-9) *(-4)\)
\(=36\)

Type in 36.
61) Problem \#PRABFDB "PRABFDB - Multiplication of Integers"

What is (-2) * 7 ?

\section*{Algebraic Expression:}
\(\sqrt{-14}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

2 * 7

\section*{Algebraic Expression:}
\(\sqrt{ } 14\)

\section*{Hints:}

Below are the multiplication tables of 2 and 7.
You can use them to compute 2*7.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 2 & \(*\) & 0 & \(=\) & 0 & & 7 & \(*\) & 0 & \(=\) & 0 \\
\hline 2 & \(*\) & 1 & \(=\) & 2 & & 7 & \(*\) & 1 & \(=\) & 7 \\
\hline 2 & \(*\) & 2 & \(=\) & 4 & & 7 & \(*\) & 2 & \(=\) & 14 \\
\hline 2 & \(*\) & 3 & \(=\) & 6 & & 7 & \(*\) & 3 & \(=\) & 21 \\
\hline 2 & \(*\) & 4 & \(=\) & 8 & & 7 & \(*\) & 4 & \(=\) & 28 \\
\hline 2 & \(*\) & 5 & \(=\) & 10 & & 7 & \(*\) & 5 & \(=\) & 35 \\
\hline 2 & \(*\) & 6 & \(=\) & 12 & & 7 & \(*\) & 6 & \(=\) & 42 \\
\hline 2 & \(*\) & 7 & \(=\) & 14 & & 7 & \(*\) & 7 & \(=\) & 49 \\
\hline 2 & \(*\) & 8 & \(=\) & 16 & & 7 & \(*\) & 8 & \(=\) & 56 \\
\hline 2 & \(*\) & 9 & \(=\) & 18 & & 7 & \(*\) & 9 & \(=\) & 63 \\
\hline 2 & \(*\) & 10 & \(=\) & 20 & & 7 & \(*\) & 10 & \(=\) & 70 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(2 * 7=14\)

And at the row in table 2 that shows, \(7 * 2=14\)

Thus, type in 14.

\section*{Scaffold:}

We know,
\(2 * 7=14\)
Now try the original problem again.

What is \((-2)\) * 7 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-14\)

\section*{Hints:}
- We know,
\(2 * 7=14\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-2) * 7\)
\(=-14\)

Type in -14
62) Problem \#PRABFCS "PRABFCS - Multiplication of Integers"

What is (-9) * 3?
Algebraic Expression:
\(\sqrt{ }-27\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
9 * 3

\section*{Algebraic Expression:}
\(\sqrt{ } 27\)

\section*{Hints:}

Below are the multiplication tables of 9 and 3.
You can use them to compute 9*3.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 9 & \(*\) & 0 & \(=\) & 0 & & 3 & \(*\) & 0 & \(=\) & 0 \\
\hline 9 & \(*\) & 1 & \(=\) & 9 & & 3 & \(*\) & 1 & \(=\) & 3 \\
\hline 9 & \(*\) & 2 & \(=\) & 18 & & 3 & \(*\) & 2 & \(=\) & 6 \\
\hline 9 & \(*\) & 3 & \(=\) & 27 & & 3 & \(*\) & 3 & \(=\) & 9 \\
\hline 9 & \(*\) & 4 & \(=\) & 36 & & 3 & \(*\) & 4 & \(=\) & 12 \\
\hline 9 & \(*\) & 5 & \(=\) & 45 & & 3 & \(*\) & 5 & \(=\) & 15 \\
\hline 9 & \(*\) & 6 & \(=\) & 54 & & 3 & \(*\) & 6 & \(=\) & 18 \\
\hline 9 & \(*\) & 7 & \(=\) & 63 & & 3 & \(*\) & 7 & \(=\) & 21 \\
\hline 9 & \(*\) & 8 & \(=\) & 72 & & 3 & \(*\) & 8 & \(=\) & 24 \\
\hline 9 & \(*\) & 9 & \(=\) & 81 & & 3 & \(*\) & 9 & \(=\) & 27 \\
\hline 9 & \(*\) & 10 & \(=\) & 90 & & 3 & \(*\) & 10 & \(=\) & 30 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(9 * 3=27\)
And at the row in table 2 that shows,

- \(9 * 3=27\)

Thus, type in 27.

\section*{Scaffold:}

We know,
\(9 * 3=27\)
Now try the original problem again.

What is (-9) * 3 ?

\section*{Algebraic Expression:}
\(\sqrt{\text { - } 27}\)

\section*{Hints:}
- We know,
\(9 * 3=27\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-9) * 3\)
\(=-27\)


Type in - 27
63) Problem \#PRABFEC "PRABFEC - Multiplication of Integers"

What is (-3) * (-3)?
Algebraic Expression:
9

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
3 * 3
Algebraic Expression:
\(\sqrt{ } 9\)

\section*{Hints:}
-
Below are the multiplication tables of 3 and 3 .
You can use them to compute 3*3.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{c|}{ Table 2} \\
\hline 3 & \(*\) & 0 & \(=\) & 0 & & & 3 & \(*\) & 0 & \(=\) \\
\hline 3 & \(*\) & 1 & \(=\) & 3 & & & 3 & \(*\) & 1 & \(=\) \\
\hline 3 & \(*\) & 2 & \(=\) & 6 & & & 3 & \(*\) & 2 & \(=\) \\
\hline 3 & \(*\) & 3 & \(=\) & 9 & & & 3 & \(*\) & 3 & \(=\) \\
\hline 3 & \(*\) & 4 & \(=\) & 12 & & & 3 & \(*\) & 4 & \(=\) \\
\hline 3 & \(*\) & 5 & \(=\) & 15 & & & 3 & \(*\) & 5 & \(=\) \\
\hline 3 & \(*\) & 6 & \(=\) & 18 & & & 3 & \(*\) & 6 & \(=\) \\
\hline 3 & \(*\) & 7 & \(=\) & 21 & & & 3 & \(*\) & 78 \\
\hline 3 & \(*\) & 8 & \(=\) & 24 & & 3 & \(*\) & 21 \\
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 3 & \(*\) & 8 & \(=\) & 24 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 3 & \(*\) & 10 & \(=\) & 27 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 3 * 3 = 9

And at the row in table 2 that shows,
\(3 * 3=9\)
- \(3 * 3=9\)

Thus, type in 9.

\section*{Scaffold:}

We know,
\(3 * 3=9\)
Now try the original problem again.

What is \((-3)\) * \((-3)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)

\section*{Hints:}
- We know,
\(3 * 3=9\)

We need to consider the signs of the factors as well.
-
Our first factor, -3 , is negative and our second factor, -3 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-

Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-3) *(-3)\)
\(=9\)

Type in 9 .
64) Problem \#PRABFCE "PRABFCE - Multiplication of Integers"

What is 3 * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{-12}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
3 * 4

\section*{Algebraic Expression:}
\(\sqrt{12}\)

\section*{Hints:}
-
Below are the multiplication tables of 3 and 4 .
You can use them to compute 3*4.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & & \multicolumn{5}{|c|}{Table 2} \\
\hline 3 & * & 0 & \(=\) & 0 & & 4 & * & 0 & = & 0 \\
\hline 3 & * & 1 & = & 3 & & 4 & * & 1 & \(=\) & 4 \\
\hline 3 & * & 2 & = & 6 & & 4 & * & 2 & = & 8 \\
\hline 3 & * & 3 & = & 9 & & 4 & * & 3 & = & 12 \\
\hline 3 & * & 4 & = & 12 & & 4 & * & 4 & = & 16 \\
\hline 3 & * & 5 & = & 15 & & 4 & * & 5 & \(=\) & 20 \\
\hline 3 & * & 6 & = & 18 & & 4 & * & 6 & = & 24 \\
\hline 3 & * & 7 & = & 21 & & 4 & * & 7 & = & 28 \\
\hline 3 & * & 8 & Iido & \[
24
\] & /8039 & 4 & * & 8 & = & \% 32 \\
\hline 3 & * & 9 & \(=\) & 27 & & 4 & * & 9 & = & 36 \\
\hline 3 & * & 10 & = & 30 & & 4 & * & 10 & \(=\) & 40 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 3 * 4 = 12

And at the row in table 2 that shows, \(4 * 3=12\)
- 3 * \(4=12\)

Thus, type in 12.

\section*{Scaffold:}

We know,
3 * 4 = 12
Now try the original problem again.

What is 3 * (-4)?
Algebraic Expression:
\(\sqrt{-12}\)

\section*{Hints:}
- We know, \(3 * 4=12\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-

We have, the second case where,


Thus using this rule we get,
\(3 *(-4)\)
\(=-12\)

Type in -12

What is (-9) * 9?

\section*{Algebraic Expression:}
\(\sqrt{ }-81\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
9 * 9
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 81\)

\section*{Hints:}

Below are the multiplication tables of 9 and 9 .
You can use them to compute 9*9.

-
Look at the row in table 1 that shows,
\(9 * 9=81\)
And at the row in table 2 that shows,
\(9 * 9=81\)
- \(9 * 9=81\)

Thus, type in 81.

\section*{Scaffold:}

We know,
\(9 * 9=81\)

Now try the original problem again.

What is (-9) * 9?
Algebraic Expression:
\(\sqrt{ }-81\)

\section*{Hints:}
- We know,
\(9 * 9=81\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-

We have, the third case where,


Thus using this rule we get,
\((-9) * 9\)
\(=-81\)

\section*{66) Problem \#PRABFCH "PRABFCH - Multiplication of Integers"}

\section*{What is 7 * (-3)?}

\section*{Algebraic Expression:}

ง -21

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(7 * 3\)

\section*{Algebraic Expression:}
\(\sqrt{ } 21\)

\section*{Hints:}

Below are the multiplication tables of 7 and 3.
You can use them to compute 7*3.

-
Look at the row in table 1 that shows,
\(7 * 3=21\)

And at the row in table 2 that shows,
\(3 * 7=21\)
- \(7 * 3=21\)

Thus, type in 21.

\section*{Scaffold:}

We know,
7 * 3 = 21
Now try the original problem again.

What is 7 * \((-3)\) ?
Algebraic Expression:
\(\sqrt{ }-21\)

\section*{Hints:}
- We know, \(7 * 3=21\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
7 * (-3)
\(=-21\)

Type in -21

\section*{67) Problem \#PRABFDX "PRABFDX - Multiplication of Integers"}

What is (-8) * (-7)?

\section*{Algebraic Expression:}
\(\sqrt{ } 56\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
8*7
Algebraic Expression:
\(\sqrt{56}\)
Hints:
-
Below are the multiplication tables of 8 and 7.
You can use them to compute 8*7.

-
Look at the row in table 1 that shows, \(8 * 7=56\)

And at the row in table 2 that shows,
\(7 * 8=56\)
- \(8 * 7=56\)

Thus, type in 56.

\section*{Scaffold:}

We know,
\(8 * 7=56\)
Now try the original problem again.

What is (-8) * (-7)?
Algebraic Expression:
\(\sqrt{ } 56\)

\section*{Hints:}
- We know,
\(8 * 7=56\)
We need to consider the signs of the factors as well.
-
Our first factor, -8 , is negative and our second factor, -7 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

https://www.ass

- We have, the fourth case where,


Thus using this rule we get,
\((-8) *(-7)\)

Type in 56 .
68) Problem \#PRABFDH "PRABFDH - Multiplication of Integers"

What is (-2) * 7 ?

\section*{Algebraic Expression:}
\(\sqrt{-14}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 7

\section*{Algebraic Expression:}
\(\sqrt{ } 14\)

\section*{Hints:}
-
Below are the multiplication tables of 2 and 7.
You can use them to compute 2*7.


Look at the row in table 1 that shows,
\(2 * 7=14\)

And at the row in table 2 that shows, \(7 * 2=14\)
- \(2 * 7=14\)

Thus, type in 14.

\section*{Scaffold:}

We know,
2 * 7 = 14
Now try the original problem again.

What is (-2) * 7 ?
Algebraic Expression:
V -14

\section*{Hints:}
- We know,
\(2 * 7=14\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

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-

We have, the third case where,


Thus using this rule we get,
\((-2) * 7\)

Type in -14
69) Problem \#PRABFC3 "PRABFC3 - Multiplication of Integers"

What is 7 * (-2)?
Algebraic Expression:
\(\sqrt{-14}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(7 * 2\)

\section*{Algebraic Expression:}
\(\sqrt{ } 14\)

\section*{Hints:}

Below are the multiplication tables of 7 and 2.
You can use them to compute 7*2.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{12}{*}{https://www.ass} & \multicolumn{5}{|l|}{stmTa, bableg/kuild/print/se} & \multirow[t]{2}{*}{} & \multicolumn{5}{|l|}{4?ntabledebtg\&op_scaf} & \multirow[t]{12}{*}{false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false} \\
\hline & 7 & * & 0 & \(=\) & 0 & & 2 & * & 0 & \(=\) & 0 & \\
\hline & 7 & * & 1 & \(=\) & 7 & & 2 & * & 1 & \(=\) & 2 & \\
\hline & 7 & * & 2 & \(=\) & 14 & & 2 & * & 2 & \(=\) & 4 & \\
\hline & 7 & * & 3 & \(=\) & 21 & & 2 & * & 3 & \(=\) & 6 & \\
\hline & 7 & * & 4 & \(=\) & 28 & & 2 & * & 4 & \(=\) & 8 & \\
\hline & 7 & * & 5 & \(=\) & 35 & & 2 & * & 5 & \(=\) & 10 & \\
\hline & 7 & * & 6 & \(=\) & 42 & & 2 & * & 6 & \(=\) & 12 & \\
\hline & 7 & * & 7 & \(=\) & 49 & & 2 & * & 7 & \(=\) & 14 & \\
\hline & 7 & * & 8 & \(=\) & 56 & & 2 & * & 8 & \(=\) & 16 & \\
\hline & 7 & * & 9 & \(=\) & 63 & & 2 & * & 9 & \(=\) & 18 & \\
\hline & 7 & * & 10 & \(=\) & 70 & & 2 & * & 10 & \(=\) & 20 & \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(7 * 2=14\)

And at the row in table 2 that shows, 2 * 7 = 14
- \(7 * 2=14\)

Thus, type in 14.

\section*{Scaffold:}

We know,
7 * 2 = 14
Now try the original problem again.

What is 7 * \((-2)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{ }-14
\]

\section*{Hints:}
- We know, \(7 * 2=14\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

https://www.ass

-
We have, the second case where,


Thus using this rule we get,

7 * (-2)
\(=-14\)

Type in -14
70) Problem \#PRABFD3 "PRABFD3 - Multiplication of Integers"

What is (-6) * (-1)?

\section*{Algebraic Expression:}
\(\sqrt{6}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\(6 * 1\)
Algebraic Expression:
\(\sqrt{ } 6\)

\section*{Hints:}

Below are the multiplication tables of 6 and 1.
You can use them to compute 6*1.


Look at the row in table 1 that shows, 6 * 1 = 6

And at the row in table 2 that shows, \(1 * 6=6\)
- \(6 * 1=6\)

Thus, type in 6.

\section*{Scaffold:}

We know,
6 * \(1=6\)
Now try the original problem again.

What is \((-6) *(-1)\) ?
Algebraic Expression:
\(\sqrt{6}\)

\section*{Hints:}
- We know,
\(6 * 1=6\)
We need to consider the signs of the factors as well.
-
Our first factor, -6 , is negative and our second factor, -1 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-


- We have, the fourth case where,


Thus using this rule we get,
\((-6) *(-1)\)
\(=6\)

Type in 6.
71) Problem \#PRABFDG "PRABFDG - Multiplication of Integers"

What is (-7) * 10 ?

\section*{Algebraic Expression:}
\(\sqrt{-70}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
7 * 10

\section*{Algebraic Expression:}

70

\section*{Hints:}

Below are the multiplication tables of 7 and 10 .
You can use them to compute 7*10.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 7 & * & 0 & \(=\) & 0 & 10 & * & 0 & = & 0 \\
\hline 7 & * & 1 & = & 7 & 10 & * & 1 & \(=\) & 10 \\
\hline 7 & * & 2 & = & 14 & 10 & * & 2 & = & 20 \\
\hline 7 & * & 3 & = & 21 & 10 & * & 3 & = & 30 \\
\hline 7 & * & 4 & = & 28 & 10 & * & 4 & = & 40 \\
\hline 7 & * & 5 & = & 35 & 10 & * & 5 & = & 50 \\
\hline 7 & * & 6 & = & 42 & 10 & * & 6 & = & 60 \\
\hline 7 & * & 7 & = & 49 & 10 & * & 7 & = & 70 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
7 & \(*\) & 8 & \(=\) & 56 & & 10 & \(*\) & 8 & \(=\) & 80 \\
\hline 7 & \(*\) & 9 & \(=\) & 63 & & 10 & \(*\) & 9 & \(=\) & 90 \\
\hline 7 & \(*\) & 10 & \(=\) & 70 & & 10 & \(*\) & 10 & \(=\) & 100 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
7 * 10 = 70
And at the row in table 2 that shows,
\(10 * 7=70\)
- \(7 * 10=70\)

Thus, type in 70.

\section*{Scaffold:}

We know,
\(7 * 10=70\)
Now try the original problem again.

What is (-7) * 10 ?

\section*{Algebraic Expression:}
\[
\sqrt{ }-70
\]

\section*{Hints:}
- We know,

7 * 10 = 70
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

\(X \longrightarrow=\square\)

-

We have, the third case where,


Thus using this rule we get,
\((-7) * 10\)
\(=-70\)

Type in -70
72) Problem \#PRABFCA "PRABFCA - Multiplication of Integers"

What is 4 * \((-3)\) ?

\section*{Algebraic Expression:}
\(\sqrt{-12}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
4 * 3
 12

\section*{Hints:}

Below are the multiplication tables of 4 and 3.
You can use them to compute 4*3.
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1 } & & \multicolumn{4}{|c|}{ Table 2 } \\
\hline 4 & \(*\) & 0 & \(=\) & 0 & & 3 & \(*\) & 0 & \(=\) & 0 \\
\hline 4 & \(*\) & 1 & \(=\) & 4 & & 3 & \(*\) & 1 & \(=\) & 3 \\
\hline 4 & \(*\) & 2 & \(=\) & 8 & & 3 & \(*\) & 2 & \(=\) & 6 \\
\hline 4 & \(*\) & 3 & \(=\) & 12 & & 3 & \(*\) & 3 & \(=\) & 9 \\
\hline 4 & \(*\) & 4 & \(=\) & 16 & & 3 & \(*\) & 4 & \(=\) & 12 \\
\hline 4 & \(*\) & 5 & \(=\) & 20 & & 3 & \(*\) & 5 & \(=\) & 15 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 4 & \(*\) & 6 & \(=\) & 24 & & 3 & \(*\) & 6 & \(=\) & 18 \\
\hline 4 & \(*\) & 7 & \(=\) & 28 & & 3 & \(*\) & 7 & \(=\) & 21 \\
\hline 4 & \(*\) & 8 & \(=\) & 32 & & 3 & \(*\) & 8 & \(=\) & 24 \\
\hline 4 & \(*\) & 9 & \(=\) & 36 & & 3 & \(*\) & 9 & \(=\) & 27 \\
\hline 4 & \(*\) & 10 & \(=\) & 40 & & 3 & \(*\) & 10 & \(=\) & 30 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(4 * 3=12\)

And at the row in table 2 that shows, \(3 * 4=12\)
- \(4 * 3=12\)

Thus, type in 12.

\section*{Scaffold:}

We know,
\(4 * 3=12\)
Now try the original problem again.

What is 4 * (-3)?

\section*{Algebraic Expression:}
\(\sqrt{ }-12\)

\section*{Hints:}
- We know,
\(4 * 3=12\)
We need to consider the signs of the factors as well.
-


\(x \&=\square\)


We have, the second case where,


Thus using this rule we get,
\(4 *(-3)\)
\(=-12\)

Type in -12

\section*{73) Problem \#PRABFDM "PRABFDM - Multiplication of Integers"}

What is (-3) * 6?

\section*{Algebraic Expression:}
\(\sqrt{ }-18\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
3 * 6
\]

\section*{Hints:}
-
Below are the multiplication tables of 3 and 6 .
You can use them to compute 3*6.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{3}{|c|}{ Table 1} & & \multicolumn{4}{c|}{ Table 2} \\
\hline 3 & \(*\) & 0 & \(=\) & 0 & & & 6 & \(*\) & 0 & \(=\) \\
\hline & 0 \\
\hline 3 & \(*\) & 1 & \(=\) & 3 & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 3 & \(*\) & 2 & \(=\) & 6 & & & 6 & \(*\) & 2 & \(=\) \\
\hline 3 & \(*\) & 3 & \(=\) & 9 & & & 6 & \(*\) & 3 & \(=\) \\
\hline 3 & \(*\) & 4 & \(=\) & 12 & & 6 & \(*\) & 4 & \(=\) & 24 \\
\hline 3 & \(*\) & 5 & \(=\) & 15 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
\hline 3 & \(*\) & 6 & \(=\) & 18 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 3 & \(*\) & 7 & \(=\) & 21 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 3 & \(*\) & 8 & \(=\) & 24 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(3 * 6=18\)

And at the row in table 2 that shows, \(6 * 3=18\)
- \(3 * 6=18\)

Thus, type in 18.

\section*{Scaffold:}

We know,
3 * \(6=18\)
Now try the original problem again.

What is \((-3)\) * 6 ?

\section*{Algebraic Expression:}
\[
\sqrt{ }-18
\]

\section*{Hints:}
- We know,
\(3 * 6=18\)
We need to consider the signs of the factors as well.
-


\(X=\square\)
\(X \quad=\)

We have, the third case where,


Thus using this rule we get,
\((-3) * 6\)
\(=-18\)

Type in -18
74) Problem \#PRABFEJ "PRABFEJ - Multiplication of Integers"

What is (-3) * (-7)?

\section*{Algebraic Expression:}
\(\sqrt{21}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{\(3 * 7\)}

Algebraic Expression:
\(\sqrt{21}\)

\section*{Hints:}
-

Below are the multiplication tables of 3 and 7 .
You can use them to compute 3*7.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2 } \\
\hline 3 & \(*\) & 0 & \(=\) & 0 & & 7 & \(*\) & 0 & \(=\) & 0 \\
\hline 3 & \(*\) & 1 & \(=\) & 3 & & 7 & \(*\) & 1 & \(=\) & 7 \\
\hline 3 & \(*\) & 2 & \(=\) & 6 & & 7 & \(*\) & 2 & \(=\) & 14 \\
\hline 3 & \(*\) & 3 & \(=\) & 9 & & 7 & \(*\) & 3 & \(=\) & 21 \\
\hline 3 & \(*\) & 4 & \(=\) & 12 & & 7 & \(*\) & 4 & \(=\) & 28 \\
\hline & & & & & & & & \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|l|}
3 & \(*\) & 5 & \(=\) & 15 & & 7 & \(*\) & 5 & \(=\) & 35 \\
\hline 3 & \(*\) & 6 & \(=\) & 18 & & 7 & \(*\) & 6 & \(=\) & 42 \\
\hline 3 & \(*\) & 7 & \(=\) & 21 & & 7 & \(*\) & 7 & \(=\) & 49 \\
\hline 3 & \(*\) & 8 & \(=\) & 24 & & 7 & \(*\) & 8 & \(=\) & 56 \\
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 7 & \(*\) & 9 & \(=\) & 63 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 7 & \(*\) & 10 & \(=\) & 70 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 3 * \(7=21\)

And at the row in table 2 that shows, \(7 * 3=21\)
- \(3 * 7=21\)

Thus, type in 21.

\section*{Scaffold:}

We know,
\(3 * 7=21\)
Now try the original problem again.

What is (-3) * (-7)?

\section*{Algebraic Expression:}
\(\sqrt{21}\)

\section*{Hints:}
- We know,
\(3 * 7=21\)
We need to consider the signs of the factors as well.

Our first factor, -3 , is negative and our second factor, -7 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-3) *(-7)\)
\(=21\)

Type in 21.
75) Problem \#PRABFDP "PRABFDP - Multiplication of Integers"

What is (-6) * 2?

\section*{Algebraic Expression:}
\(\sqrt{-12}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
6 * 2
Algebraic Expression:
\(\sqrt{ } 12\)

\section*{Hints:}
-
Below are the multiplication tables of 6 and 2 .
You can use them to compute 6*2.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 6 & \(*\) & 0 & \(=\) & 0 & & 2 & \(*\) & 0 & \(=\) & 0 \\
\hline 6 & \(*\) & 1 & \(=\) & 6 & & 2 & \(*\) & 1 & \(=\) & 2 \\
\hline 6 & \(*\) & 2 & \(=\) & 12 & & 2 & \(*\) & 2 & \(=\) & 4 \\
\hline 6 & \(*\) & 3 & \(=\) & 18 & & 2 & \(*\) & 3 & \(=\) & 6 \\
\hline 6 & \(*\) & 4 & \(=\) & 24 & & 2 & \(*\) & 4 & \(=\) & 8 \\
\hline 6 & \(*\) & 5 & \(=\) & 30 & & 2 & \(*\) & 5 & \(=\) & 10 \\
\hline 6 & \(*\) & 6 & \(=\) & 36 & & 2 & \(*\) & 6 & \(=\) & 12 \\
\hline 6 & \(*\) & 7 & \(=\) & 42 & & 2 & \(*\) & 7 & \(=\) & 14 \\
\hline 6 & \(*\) & 8 & \(=\) & 48 & & 2 & \(*\) & 8 & \(=\) & 16 \\
\hline 6 & \(*\) & 9 & \(=\) & 54 & & 2 & \(*\) & 9 & \(=\) & 18 \\
\hline 6 & \(*\) & 10 & \(=\) & 60 & & 2 & \(*\) & 10 & \(=\) & 20 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(6 * 2=12\)

And at the row in table 2 that shows,
\(2 * 6=12\)
- \(6 * 2=12\)

Thus, type in 12.

\section*{Scaffold:}

Ne know,
\(6 * 2=12\)
Now try the original problem again.

What is (-6) * 2?

\section*{Algebraic Expression:}
\(\sqrt{ }-12\)

\section*{Hints:}
- We know,
\(6 * 2=12\)
We need to consider the signs of the factors as well.

-
We have, the third case where,


Thus using this rule we get,
\((-6) * 2\)
\(=-12\)

Type in -12
76) Problem \#PRABFB9 "PRABFB9 - Multiplication of Integers"

What is 3 * (-5)?
Algebraic Expression:
\(\sqrt{-15}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

3 * 5

\section*{Algebraic Expression:}
\(\sqrt{ } 15\)

\section*{Hints:}

Below are the multiplication tables of 3 and 5 .
You can use them to compute 3*5.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & \multicolumn{5}{|c|}{ Table 2} \\
\hline 3 & \(*\) & 0 & \(=\) & 0 & & 5 & \(*\) & 0 & \(=\) & 0 \\
\hline 3 & \(*\) & 1 & \(=\) & 3 & & 5 & \(*\) & 1 & \(=\) & 5 \\
\hline 3 & \(*\) & 2 & \(=\) & 6 & & 5 & \(*\) & 2 & \(=\) & 10 \\
\hline 3 & \(*\) & 3 & \(=\) & 9 & & 5 & \(*\) & 3 & \(=\) & 15 \\
\hline 3 & \(*\) & 4 & \(=\) & 12 & & 5 & \(*\) & 4 & \(=\) & 20 \\
\hline 3 & \(*\) & 5 & \(=\) & 15 & & 5 & \(*\) & 5 & \(=\) & 25 \\
\hline 3 & \(*\) & 6 & \(=\) & 18 & & 5 & \(*\) & 6 & \(=\) & 30 \\
\hline 3 & \(*\) & 7 & \(=\) & 21 & & 5 & \(*\) & 7 & \(=\) & 35 \\
\hline 3 & \(*\) & 8 & \(=\) & 24 & & 5 & \(*\) & 8 & \(=\) & 40 \\
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 5 & \(*\) & 9 & \(=\) & 45 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 5 & \(*\) & 10 & \(=\) & 50 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(3 * 5=15\)

And at the row in table 2 that shows, \(5 * 3=15\)

Thus, type in 15.

\section*{Scaffold:}

We know,
\(3 * 5=15\)
Now try the original problem again.

What is 3 * (-5)?

\section*{Algebraic Expression:}
\(\sqrt{ }-15\)

\section*{Hints:}
- We know,
\(3 * 5=15\)
We need to consider the signs of the factors as well.

-

We have, the second case where,


Thus using this rule we get,
3 * (-5)
\(=-15\)

Type in -15
77) Problem \#PRABFCJ "PRABFCJ - Multiplication of Integers"

What is 8 * \((-6)\) ?

\section*{Algebraic Expression:}
\(\sqrt{-48}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

8 * 6

\section*{Algebraic Expression:}
\(\sqrt{ } 48\)

\section*{Hints:}

Below are the multiplication tables of 8 and 6 .
You can use them to compute 8*6.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 8 & \(*\) & 0 & \(=\) & 0 & & 6 & \(*\) & 0 & \(=\) & 0 \\
\hline 8 & \(*\) & 1 & \(=\) & 8 & & 6 & \(*\) & 1 & \(=\) & 6 \\
\hline 8 & \(*\) & 2 & \(=\) & 16 & & 6 & \(*\) & 2 & \(=\) & 12 \\
\hline 8 & \(*\) & 3 & \(=\) & 24 & & 6 & \(*\) & 3 & \(=\) & 18 \\
\hline 8 & \(*\) & 4 & \(=\) & 32 & & 6 & \(*\) & 4 & \(=\) & 24 \\
\hline 8 & \(*\) & 5 & \(=\) & 40 & & 6 & \(*\) & 5 & \(=\) & 30 \\
\hline 8 & \(*\) & 6 & \(=\) & 48 & & 6 & \(*\) & 6 & \(=\) & 36 \\
\hline 8 & \(*\) & 7 & \(=\) & 56 & & 6 & \(*\) & 7 & \(=\) & 42 \\
\hline 8 & \(*\) & 8 & \(=\) & 64 & & 6 & \(*\) & 8 & \(=\) & 48 \\
\hline 8 & \(*\) & 9 & \(=\) & 72 & & 6 & \(*\) & 9 & \(=\) & 54 \\
\hline 8 & \(*\) & 10 & \(=\) & 80 & & 6 & \(*\) & 10 & \(=\) & 60 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(8 * 6=48\)

And at the row in table 2 that shows, \(6 * 8=48\)

Thus, type in 48.

\section*{Scaffold:}

We know,
\(8 * 6=48\)
Now try the original problem again.

What is 8 * \((-6)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-48\)

\section*{Hints:}
- We know, \(8 * 6=48\)

We need to consider the signs of the factors as well.

-

We have, the second case where,


Thus using this rule we get,
8 * (-6)
\(=-48\)

Type in -48
78) Problem \#PRABFDV "PRABFDV - Multiplication of Integers"

What is (-8) * 7 ?

\section*{Algebraic Expression:}
\(\sqrt{-56}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

8 * 7

\section*{Algebraic Expression:}
\(\sqrt{ } 56\)

\section*{Hints:}

Below are the multiplication tables of 8 and 7.
You can use them to compute 8*7.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 8 & \(*\) & 0 & \(=\) & 0 & & 7 & \(*\) & 0 & \(=\) & 0 \\
\hline 8 & \(*\) & 1 & \(=\) & 8 & & 7 & \(*\) & 1 & \(=\) & 7 \\
\hline 8 & \(*\) & 2 & \(=\) & 16 & & 7 & \(*\) & 2 & \(=\) & 14 \\
\hline 8 & \(*\) & 3 & \(=\) & 24 & & 7 & \(*\) & 3 & \(=\) & 21 \\
\hline 8 & \(*\) & 4 & \(=\) & 32 & & 7 & \(*\) & 4 & \(=\) & 28 \\
\hline 8 & \(*\) & 5 & \(=\) & 40 & & 7 & \(*\) & 5 & \(=\) & 35 \\
\hline 8 & \(*\) & 6 & \(=\) & 48 & & 7 & \(*\) & 6 & \(=\) & 42 \\
\hline 8 & \(*\) & 7 & \(=\) & 56 & & 7 & \(*\) & 7 & \(=\) & 49 \\
\hline 8 & \(*\) & 8 & \(=\) & 64 & & 7 & \(*\) & 8 & \(=\) & 56 \\
\hline 8 & \(*\) & 9 & \(=\) & 72 & & 7 & \(*\) & 9 & \(=\) & 63 \\
\hline 8 & \(*\) & 10 & \(=\) & 80 & & 7 & \(*\) & 10 & \(=\) & 70 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, \(8 * 7=56\)

And at the row in table 2 that shows, \(7 * 8=56\)

Thus, type in 56.

\section*{Scaffold:}

We know,
\(8 * 7=56\)
Now try the original problem again.

What is (-8) * 7 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-56\)

\section*{Hints:}
- We know,
\(8 * 7=56\)
We need to consider the signs of the factors as well.
\(\bullet\)
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-8) * 7\)
\(=-56\)

Type in -56

\section*{79) Problem \#PRABFDD "PRABFDD - Multiplication of Integers"}

What is (-7) * 10 ?
Algebraic Expression:
\(\sqrt{ }-70\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
7 * 10

\section*{Algebraic Expression:}
\(\sqrt{ } 70\)

\section*{Hints:}

Below are the multiplication tables of 7 and 10.
You can use them to compute 7*10.
\begin{tabular}{|c|l|l|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 7 & \(*\) & 0 & \(=\) & 0 & & 10 & \(*\) & 0 & \(=\) & 0 \\
\hline 7 & \(*\) & 1 & \(=\) & 7 & & 10 & \(*\) & 1 & \(=\) & 10 \\
\hline 7 & \(*\) & 2 & \(=\) & 14 & & 10 & \(*\) & 2 & \(=\) & 20 \\
\hline 7 & \(*\) & 3 & \(=\) & 21 & & 10 & \(*\) & 3 & \(=\) & 30 \\
\hline 7 & \(*\) & 4 & \(=\) & 28 & & 10 & \(*\) & 4 & \(=\) & 40 \\
\hline 7 & \(*\) & 5 & \(=\) & 35 & & 10 & \(*\) & 5 & \(=\) & 50 \\
\hline 7 & \(*\) & 6 & \(=\) & 42 & & 10 & \(*\) & 6 & \(=\) & 60 \\
\hline 7 & \(*\) & 7 & \(=\) & 49 & & 10 & \(*\) & 7 & \(=\) & 70 \\
\hline 7 & \(*\) & 8 & \(=\) & 56 & & 10 & \(*\) & 8 & \(=\) & 80 \\
\hline 7 & \(*\) & 9 & \(=\) & 63 & & 10 & \(*\) & 9 & \(=\) & 90 \\
\hline 7 & \(*\) & 10 & \(=\) & 70 & & 10 & \(*\) & 10 & \(=\) & 100 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows,
\(7 * 10=70\)
And at the row in table 2 that shows,

- \(7 * 10=70\)

Thus, type in 70.

\section*{Scaffold:}

We know,
\(7 * 10=70\)
Now try the original problem again.

What is (-7) * 10 ?

\section*{Algebraic Expression:}

」 -70

\section*{Hints:}
- We know,

7 * \(10=70\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-7) * 10\)
\(=-70\)


Type in -70

\section*{80) Problem \#PRABFEG "PRABFEG - Multiplication of Integers"}

What is (-4) * (-4)?

\section*{Algebraic Expression:}

16

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
4 * 4
Algebraic Expression:
\(\sqrt{ } 16\)

\section*{Hints:}
-
Below are the multiplication tables of 4 and 4.
You can use them to compute \(4 * 4\).
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|l|}{Table 1} & \multicolumn{5}{|c|}{Table 2} \\
\hline 4 & * & 0 & = & 0 & 4 & * & 0 & = & 0 \\
\hline 4 & * & 1 & \(=\) & 4 & 4 & * & 1 & = & 4 \\
\hline 4 & * & 2 & = & 8 & 4 & * & 2 & = & 8 \\
\hline 4 & * & 3 & = & 12 & 4 & * & 3 & = & 12 \\
\hline 4 & * & 4 & = & 16 & 4 & * & 4 & = & 16 \\
\hline 4 & * & 5 & = & 20 & 4 & * & 5 & = & 20 \\
\hline 4 & * & 6 & = & 24 & 4 & * & 6 & = & 24 \\
\hline 4 & * & 7 & = & 28 & 4 & * & 7 & = & 28 \\
\hline 4 & * & 8 & = & 32 & 4 & * & 8 & = & 32 \\
\hline 4 & * & 9 & = & 36 & 4 & * & 9 & = & 36 \\
\hline 4 & * & 10 & = & 40 & 4 & * & 10 & = & 40 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 4 * \(4=16\)

And at the row in table 2 that shows,
\(4 * 4=16\)
- 4 * \(4=16\)

Thus, type in 16.

\section*{Scaffold:}

We know,
\(4 * 4=16\)
Now try the original problem again.

What is (-4) * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{16}\)

\section*{Hints:}
- We know,
\(4 * 4=16\)

We need to consider the signs of the factors as well.
-
Our first factor, -4 , is negative and our second factor, -4 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

- We have, the fourth case where,


Thus using this rule we get,
\((-4) *(-4)\)
\(=16\)

Type in 16.

What is 8 * (-1)?

\section*{Algebraic Expression:}
\(\sqrt{-8}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
8 * 1

\section*{Algebraic Expression:}


\section*{Hints:}
-
Below are the multiplication tables of 8 and 1 .
You can use them to compute 8*1.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & & \multicolumn{5}{|l|}{Table 2} \\
\hline 8 & * & 0 & = & 0 & & & * & 0 & = & 0 \\
\hline 8 & * & 1 & = & 8 & & 1 & * & 1 & \(=\) & 1 \\
\hline 8 & * & 2 & = & 16 & & 1 & * & 2 & = & 2 \\
\hline 8 & * & 3 & = & 24 & & 1 & * & 3 & = & 3 \\
\hline 8 & * & 4 & = & 32 & & 1 & * & 4 & = & 4 \\
\hline 8 & * & 5 & = & 40 & & 1 & * & 5 & = & 5 \\
\hline 8 & * & 6 & = & 48 & & 1 & * & 6 & = & 6 \\
\hline 8 & * & 7 & = & 56 & & 1 & * & 7 & = & 7 \\
\hline 8 & \[
\underset{\text { ments }}{*}
\] & 8 & ivide & itints & uence/8039 & 1 & * & 8 & = & 8 \\
\hline 8 & * & 9 & = & 72 & & 1 & * & 9 & = & 9 \\
\hline 8 & * & 10 & = & 80 & & 1 & * & 10 & = & 10 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, 8 * 1 = 8

And at the row in table 2 that shows,
1 * \(8=8\)
- \(8 * 1=8\)

Thus, type in 8.

\section*{Scaffold:}

We know,
8 * 1 = 8
Now try the original problem again.

What is 8 * \((-1)\) ?
Algebraic Expression:
\(\sqrt{ }-8\)

\section*{Hints:}
- We know, \(8 * 1=8\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

-
We have, the second case where,


Thus using this rule we get,
8 * \((-1)\)
\(=-8\)

Type in -8

What is \((-9)\) * \((-8)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 72\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
9 \text { * } 8
\]

\section*{Algebraic Expression:}
\[
\sqrt{72}
\]

\section*{Hints:}
-
Below are the multiplication tables of 9 and 8 .
You can use them to compute 9*8.

-
Look at the row in table 1 that shows,
\(9 * 8=72\)
And at the row in table 2 that shows,
\(8 * 9=72\)
- \(9 * 8=72\)

Thus, type in 72.

\section*{Scaffold:}

We know,
\(9 * 8=72\)
Now try the original problem again.

What is (-9) * (-8)?
Algebraic Expression:
\(\sqrt{ } 72\)

\section*{Hints:}
- We know, 9* \(8=72\)

We need to consider the signs of the factors as well.
-
Our first factor, -9 , is negative and our second factor, -8 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,

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- We have, the fourth case where,


Thus using this rule we get,
\((-9) *(-8)\)
\(=72\)

Type in 72.

\section*{83) Problem \#PRABFCB "PRABFCB - Multiplication of Integers"}

What is 2 * (-4)?

\section*{Algebraic Expression:}
\(\sqrt{-8}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2 * 4

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}
-

Below are the multiplication tables of 2 and 4.
You can use them to compute 2*4.

-
Look at the row in table 1 that shows, \(2 * 4=8\)

And at the row in table 2 that shows, 4 * 2 = 8
- \(2 * 4=8\)

Thus, type in 8.

\section*{Scaffold:}

We know,
\(2 * 4=8\)
Now try the original problem again.

What is 2 * (-4)?

\section*{Algebraic Expression:}
\[
\sqrt{ }-8
\]

\section*{Hints:}
- We know,
\(2 * 4=8\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
2 * (-4)
\(=-8\)

Type in -8

\section*{84) Problem \#PRABFC7 "PRABFC7 - Multiplication of Integers"}

What is 8 * \((-2)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-16\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
8 * 2

\section*{Algebraic Expression:}
\(\sqrt{ } 16\)

\section*{Hints:}
-
Below are the multiplication tables of 8 and 2 .
You can use them to compute 8*2.

-
Look at the row in table 1 that shows, 8 * 2 = 16

And at the row in table 2 that shows,
2 * 8 = 16
- \(8 * 2=16\)

Thus, type in 16.

\section*{Scaffold:}

We know,
\(8 * 2\) = 16
Now try the original problem again.

What is 8 * (-2)?

\section*{Algebraic Expression:}

\section*{ป -16}

\section*{Hints:}
- We know,
\(8 * 2=16\)

We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,


We have, the second case where,


Thus using this rule we get,
8 * (-2)
\(=-16\)

Type in -16

\section*{85) Problem \#PRABFEU "PRABFEU - Multiplication of Integers"}

What is (-7) * (-6)?

\section*{Algebraic Expression:}
\(\sqrt{ } 42\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,

\section*{7 * 6}

\section*{Algebraic Expression:}
\(\sqrt{ } 42\)

\section*{Hints:}
-
Below are the multiplication tables of 7 and 6 .
You can use them to compute 7*6.

-
Look at the row in table 1 that shows,
\(7 * 6=42\)
And at the row in table 2 that shows,
\(6 * 7=42\)
- \(7 * 6=42\)

Thus, type in 42.

\section*{Scaffold:}

We know,
\(7 * 6=42\)
Now try the original problem again.

What is \((-7) *(-6)\) ?

\section*{Algebraic Expression:}
\[
\sqrt{42}
\]

\section*{Hints:}
- We know,
\(7 * 6=42\)
We need to consider the signs of the factors as well.
-

Our first factor, -7 , is negative and our second factor, -6 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-7) *(-6)\)
\(=42\)

Type in 42.

\section*{86) Problem \#PRABFDE "PRABFDE - Multiplication of Integers"}

What is (-8) * 9?

\section*{Algebraic Expression:}
\(\sqrt{-72}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
8 *9

\section*{Algebraic Expression:}
\(\sqrt{ } 72\)
Hints:
-
Below are the multiplication tables of 8 and 9 .
You can use them to compute 8*9.


Look at the row in table 1 that shows, 8 * 9 = 72

And at the row in table 2 that shows, \(9 * 8=72\)
- \(8 * 9=72\)

Thus, type in 72.

\section*{Scaffold:}

We know,
\(8 * 9=72\)
Now try the original problem again.

What is \((-8) * 9\) ?
Algebraic Expression:
\[
\sqrt{-72}
\]

\section*{Hints:}
- We know,
\(8 * 9=72\)
We need to consider the signs of the factors as well.
-
Remember the rule of multiplying signs which says,

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-

We have, the third case where,


Thus using this rule we get,
\((-8) * 9\)
\(=-72\)

Type in - 72
87) Problem \#PRABFC5 "PRABFC5 - Multiplication of Integers"

What is 7 * (-10)?

\section*{Algebraic Expression:}
\(\sqrt{-70}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
\[
7 * 10
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 70\)

\section*{Hints:}
-
Below are the multiplication tables of 7 and 10 .
You can use them to compute 7*10.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|l|}{Table 2} \\
\hline 7 & * & 0 & = & 0 & 10 & * & 0 & = & 0 \\
\hline 7 & * & 1 & = & 7 & 10 & * & 1 & = & 10 \\
\hline 7 & * & 2 & = & 14 & 10 & * & 2 & = & 20 \\
\hline 7 & * & 3 & = & 21 & 10 & * & 3 & = & 30 \\
\hline 7 & * & 4 & = & 28 & 10 & * & 4 & = & 40 \\
\hline 7 & * & 5 & = & 35 & 10 & * & 5 & \(=\) & 50 \\
\hline 7 & * & 6 & = & 42 & 10 & * & 6 & = & 60 \\
\hline 7 & * & 7 & = & 49 & 10 & * & 7 & = & 70 \\
\hline 7 & * & 8 & = & 56 & 10 & * & 8 & = & 80 \\
\hline 7 & * & 9 & \(=\) & 63 & 10 & * & 9 & \(=\) & 90 \\
\hline 7 & * & 10 & = & 70 & 10 & * & 10 & = & 100 \\
\hline
\end{tabular}

Look at the row in table 1 that shows, 7 * \(10=70\)

And at the row in table 2 that shows, 10 * 7 = 70
- \(7 * 10=70\)

Thus, type in 70.

\section*{Scaffold:}

We know, 7 * \(10=70\)
Now try the original problem again.

What is 7 * (-10)?
Algebraic Expression:
\(\sqrt{ }-70\)

\section*{Hints:}
- We know,

7 * \(10=70\)
We need to consider the signs of the factors as well.
-




We have, the second case where,


Thus using this rule we get,
7 * (-10)
\(=-70\)

Type in -70
88) Problem \#PRABFD7 "PRABFD7 - Multiplication of Integers"

What is \((-2)\) * \((-7)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 14\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
2*7
Algebraic Expression:
\(\sqrt{ } 14\)
Hints:
-
Below are the multiplication tables of 2 and 7.
You can use them to compute 2*7.


Look at the row in table 1 that shows, 2 * 7 = 14

And at the row in table 2 that shows, \(7 * 2=14\)
- 2 * \(7=14\)

Thus, type in 14.

\section*{Scaffold:}

We know,
\(2 * 7=14\)
Now try the original problem again.

What is (-2) * (-7)?
Algebraic Expression:
\(\sqrt{ } 14\)

\section*{Hints:}
- We know,
\(2 * 7=14\)
We need to consider the signs of the factors as well.
-

Our first factor, -2 , is negative and our second factor, -7 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.
-
Remember the rule of multiplying signs which says,


X

- We have, the fourth case where,


Thus using this rule we get,
\((-2) *(-7)\)
\(=14\)

Type in 14.

\section*{89) Problem \#PRABFER "PRABFER - Multiplication of Integers"}

What is \((-3) *(-10)\) ?

\section*{Algebraic Expression:}
\(\sqrt{30}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute, 3 * 10

\section*{Algebraic Expression:}


\section*{Hints:}

Below are the multiplication tables of 3 and 10 .
You can use them to compute 3*10.
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{Table 1} & \multicolumn{5}{|l|}{Table 2} \\
\hline 3 & * & 0 & = & 0 & 10 & * & 0 & \(=\) & 0 \\
\hline 3 & * & 1 & = & 3 & 10 & * & 1 & = & 10 \\
\hline 3 & * & 2 & = & 6 & 10 & * & 2 & = & 20 \\
\hline 3 & * & 3 & = & 9 & 10 & * & 3 & = & 30 \\
\hline 3 & * & 4 & = & 12 & 10 & * & 4 & = & 40 \\
\hline 3 & * & 5 & = & 15 & 10 & * & 5 & = & 50 \\
\hline 3 & * & 6 & = & 18 & 10 & * & 6 & = & 60 \\
\hline 3 & * & 7 & = & 21 & 10 & * & 7 & = & 70 \\
\hline 3 & * & 8 & = & 24 & 10 & * & 8 & = & 80 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline 3 & \(*\) & 9 & \(=\) & 27 & & 10 & \(*\) & 9 & \(=\) & 90 \\
\hline 3 & \(*\) & 10 & \(=\) & 30 & & 10 & \(*\) & 10 & \(=\) & 100 \\
\hline
\end{tabular}
-

Look at the row in table 1 that shows, 3 * \(10=30\)

And at the row in table 2 that shows, 10 * 3 = 30
- 3 * \(10=30\)

Thus, type in 30.

\section*{Scaffold:}

We know,
\(3 * 10=30\)
Now try the original problem again.

What is \((-3)\) * \((-10)\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 30\)

\section*{Hints:}
- We know,
\(3 * 10=30\)
We need to consider the signs of the factors as well.
-
Our first factor, -3 , is negative and our second factor, -10 , is negative as well.
We are multiplying a negative number to a negative one.

We must consider the multiplication of the signs as well.

- We have, the fourth case where,


Thus using this rule we get,
\((-3) *(-10)\)
\(=30\)

Type in 30 .
90) Problem \#PRABFDF "PRABFDF - Multiplication of Integers"

What is (-6) * 2 ?

\section*{Algebraic Expression:}
\(\sqrt{-12}\)

\section*{Scaffold:}

Let us first ignore the signs of the factors and try to perform the multiplication.

Go ahead and compute,
6 * 2

\section*{Algebraic Expression:}
\(\sqrt{ } 12\)

\section*{Hints:}
-
Below are the multiplication tables of 6 and 2 .
You can use them to compute 6*2.
\begin{tabular}{|c|c|c|l|l|l|l|l|l|l|l|}
\hline \multicolumn{4}{|c|}{ Table 1} & & \multicolumn{4}{|c|}{ Table 2} \\
\hline 6 & \(*\) & 0 & \(=\) & 0 & & 2 & \(*\) & 0 & \(=\) & 0 \\
\hline 6 & \(*\) & 1 & \(=\) & 6 & & 2 & \(*\) & 1 & \(=\) & 2 \\
\hline 6 & \(*\) & 2 & \(=\) & 12 & & 2 & \(*\) & 2 & \(=\) & 4 \\
\hline 6 & \(*\) & 3 & \(=\) & 18 & & 2 & \(*\) & 3 & \(=\) & 6 \\
\hline 6 & \(*\) & 4 & \(=\) & 24 & & 2 & \(*\) & 4 & \(=\) & 8 \\
\hline 6 & \(*\) & 5 & \(=\) & 30 & & 2 & \(*\) & 5 & \(=\) & 10 \\
\hline 6 & \(*\) & 6 & \(=\) & 36 & & 2 & \(*\) & 6 & \(=\) & 12 \\
\hline 6 & \(*\) & 7 & \(=\) & 42 & & 2 & \(*\) & 7 & \(=\) & 14 \\
\hline 6 & \(*\) & 8 & \(=\) & 48 & & 2 & \(*\) & 8 & \(=\) & 16 \\
\hline 6 & \(*\) & 9 & \(=\) & 54 & & 2 & \(*\) & 9 & \(=\) & 18 \\
\hline 6 & \(*\) & 10 & \(=\) & 60 & & 2 & \(*\) & 10 & \(=\) & 20 \\
\hline
\end{tabular}
-
Look at the row in table 1 that shows, \(6 * 2=12\)

And at the row in table 2 that shows, \(2 * 6=12\)
- \(6 * 2=12\)

Thus, type in 12.

\section*{Scaffold:}

We know,
\(6 * 2=12\)
Now try the original problem again.

What is \((-6)\) * 2 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-12\)

\section*{Hints:}
- We know,
\(6 * 2=12\)
We need to consider the signs of the factors as well.

Remember the rule of multiplying signs which says,

-
We have, the third case where,


Thus using this rule we get,
\((-6) * 2\)
\(=-12\)

\section*{Problem Set "Explain in Words How to Solve 8.EE.C.7b" id:[PSAHQW]}

\section*{Select All}
1) Problem \#PRAB4R5 "PRAB4R5 - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-7+5 z=33 ?\)

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 5
- Subtract 7 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 7 to both sides

\section*{Hints:}
- The first step to solve is to add or subtract on both sides of the equation.

\section*{PSAHQW 2.1}

- This is how to solve this problem.
\(-7+5 z=33\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\(\underline{5 \mathrm{z}}=\underline{40}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 7 to both sides and then divide both sides by 5

\section*{PSAHQW 2.2}
2) Problem \#PRAB4R7 "PRAB4R7 - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-4+2 x=4\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 2
X Subtract 4 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
http: \(\quad+8 \quad \underline{8}\)
\(\underline{5 x}=\underline{60}\)
\(5 \quad 5\)
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-4+2 x=4\)
\(+4 \quad+4 \quad\) Add 4 to both sides
\[
\underline{2 x}=\underline{8}
\]

22 Divide both sides by 2

Select the answer: Add 4 to both sides and then divide both sides by 2
3) Problem \#PRAB4R4 "PRAB4R4 - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-2+8 b=46\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 2} 2\) to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 2 to both sides

\section*{Hints:}
- The first step to solve is to add or subtract on both sides of the equation.

\section*{PSAHQW 1.1}

- This is how to solve this problem.
\(-2+8 b=46\)
\(+2 \quad+2\) Add 2 to both sides
\(\underline{8 \mathrm{~b}}=\underline{48}\)
\(8 \quad 8 \quad\) Divide both sides by 8

Select the answer: Add 2 to both sides and then divide both sides by 8

\section*{PSAHQW 1.2}
4) Problem \#PRAB4R9 "PRAB4R9 - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-7+4 x=9\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 4
X Subtract 7 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
http:
\[
+8 \quad \underline{+8}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-7+4 x=9\)
+7
\[
+7 \quad \text { Add } 7 \text { to both sides }
\]
\[
\underline{4 x}=\underline{16}
\]
\(4 \quad 4 \quad\) Divide both sides by 4

Select the answer: Add 7 to both sides and then divide both sides by 4

\section*{5) Problem \#PRAB4SA "PRAB4SA - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-5+3 y=16 ?\)

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\[
+8 \quad+8
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{rrr}
-5 & +3 y= & 16 \\
+5 & & \\
& \underline{+5} & \text { Add } 5 \text { to both sides } \\
& \\
\begin{array}{c}
\underline{3 y} \\
3
\end{array} & \underline{21} \\
& \\
\text { Divide both sides by } 3
\end{array}
\]

Select the answer: Add 5 to both sides and then divide both sides by 3
6) Problem \#PRAB4SB "PRAB4SB - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-3+5 x=17 ?\)

\section*{Multiple Choice:}
\(\sqrt{\text { Add }} 3\) to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\(+8 \quad+8\)
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
& -3+5 \mathrm{x}=17 \\
& +3 \quad+3 \text { Add } 3 \text { to both sides } \\
& \underline{5 x}=\underline{20} \\
& 5 \quad 5 \text { Divide both sides by } 5
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 5

\section*{7) Problem \#PRAB4R6 "PRAB4R6 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-7+5 x=3 ?\)

\section*{Multiple Choice:}

Add 7 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Subtract 7 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 7 to both sides
\({ }^{\text {nttp }} \boldsymbol{X}\) Divide both sides by 5 and then subtract 7 to both sides

\section*{Hints:}
- The first step to solve is to add or subtract on both sides of the equation.

\section*{PSAHQW 3.1}

- This is how to solve this problem.
\(-7+5 x=3\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\(\underline{5 x}=\underline{10}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 7 to both sides and then divide both sides by 5

\section*{PSAHQW 3.2}
8) Problem \#PRAB4SC "PRAB4SC - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-7+3 y=14 ?\)

\section*{Multiple Choice:}

A Add 7 to both sides and then divide both sides by 3

X Subtract 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\[
+8 \quad+8
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-7 \quad+3 y=14\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\[
\begin{gathered}
\underline{3 y} y=\underline{21} \\
3
\end{gathered} \text { Divide both sides by } 3
\]

Select the answer: Add 7 to both sides and then divide both sides by 3

\section*{9) Problem \#PRAB4R8 "PRAB4R8 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\[
-6+6 x=30 ?
\]
\({ }^{\text {http }}\) Multiple Choice:
\(\sqrt{\text { Add } 6}\) to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Subtract 6 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8
\end{array}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
```

$-6+6 x=30$
+6 Add 6 to both sides
$\underline{6 x}=\underline{36}$
$6 \quad 6 \quad$ Divide both sides by 6

```

Select the answer: Add 6 to both sides and then divide both sides by 6

\section*{10) Problem \#PRAB4VR "PRAB4VR - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{x}-5=51\) ?

\section*{Multiple Choice:}

Add 5 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad \underline{+8}\)
\(\underline{5 x}=\underline{60}\)
55
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
7 \mathrm{x}-5 & =51 \\
+5 & \underline{+5} \quad \text { Add } 5 \text { to both sides } \\
\underline{7 x} & =\frac{56}{7}
\end{aligned}
\]

Select the answer: Add 5 to both sides and then divide both sides by 7

Which of the following statements explains the correct method to solve the equation
\(-5+7 x=9 ?\)

\section*{Multiple Choice:}

Add 5 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(-8+5 x=52\)
\(+8 \quad+8\)
\(\underline{5 x}=\underline{60}\)
55
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
-5+7 x=9
\]
\(+5 \quad \underline{5}\) Add 5 to both sides
\(\underline{7 x}=\underline{14}\)
\(\begin{array}{lll}7 & 7 & \text { Divide both sides by } 7\end{array}\)

Select the answer: Add 5 to both sides and then divide both sides by 7

\section*{12) Problem \#PRAB4US "PRAB4US - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-4+5 y=31 ?\)

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Subtract 4 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8 & +8
\end{array}
\]
\[
\begin{array}{r}
\frac{5 x}{5}=\frac{60}{5} \\
x=12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{rlrl}
-4 & +5 y= & 31 & \\
+4 & \underline{+4} & \text { Add } 4 \text { to both sides } \\
& \\
\underline{5 y} & =\underline{35} \\
5 & & \\
\text { Divide both sides by } 5
\end{array}
\]

Select the answer: Add 4 to both sides and then divide both sides by 5

\section*{13) Problem \#PRAB4VK "PRAB4VK - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(5 \mathrm{c}-6=14\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 6}\) to both sides and then divide both sides by 5
X Subtract 6 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad \underline{+8}\)
\[
\underline{5 x}=\underline{60}
\]

55
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

5c \(-6=14\)
\(+6 \quad+6\) Add 6 to both sides
\[
\underline{5 c}=\underline{20}
\]

Select the answer: Add 6 to both sides and then divide both sides by 5

\section*{14) Problem \#PRAB4UN "PRAB4UN - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-4+3 x=5\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 3
X Subtract 4 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
-8 & +5 x= \\
+8 & \underline{52} \\
& \underline{+8} \\
\frac{5 x}{5} & =\frac{60}{5} \\
x & =12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-4 & +3 \mathrm{x}= \\
+4 & \\
& \underline{+4} \\
& \text { Add } 4 \text { to both sides } \\
\underline{3 x} & =\underline{9} \\
& \\
& \text { Divide both sides by } 3
\end{aligned}
\]

Select the answer: Add 4 to both sides and then divide both sides by 3

\section*{15) Problem \#PRAB4RW "PRAB4RW - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(5 \mathrm{z}-5=30\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x & -8 \\
+8 & \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
& 5 z-5=30 \\
&+5 \underline{+5} \quad \text { Add } 5 \text { to both sides } \\
& \underline{5 z}=\underline{35} \\
& 5 \\
& 5
\end{aligned}
\]

Select the answer: Add 5 to both sides and then divide both sides by 5

\section*{16) Problem \#PRAB4VW "PRAB4VW - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{x}-6=26\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 6}\) to both sides and then divide both sides by 8
X Subtract 6 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(8 x-6=26\)
\(+6 \quad \underline{6}\) Add 6 to both sides
\(\underline{8 x}=\underline{32}\)
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 6 to both sides and then divide both sides by 8

\section*{17) Problem \#PRAB4U4 "PRAB4U4 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-8+2 y=8 ?\)

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 8 to both sides and then divide both sides by 2
X Subtract 8 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8
\end{array}
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
```

$-8 \quad+2 y=8$
$+8 \quad+8 \quad$ Add 8 to both sides
2y. = $\underline{16}$
22 Divide both sides by 2

```

Select the answer: Add 8 to both sides and then divide both sides by 2

\section*{18) Problem \#PRAB4VB "PRAB4VB - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-3+7 x=53 ?\)
Multiple Choice:
\(\sqrt{\text { Add } 3} 3\) to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\[
+8 \quad+8
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.

Select the answer: Add 3 to both sides and then divide both sides by 7

\section*{19) Problem \#PRAB4WH "PRAB4WH - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(4 \mathrm{y}-8=20\) ?
nttp: Multiple Choice:
\(\sqrt{\text { Add } 8 \text { to both sides and then divide both sides by } 4}\)
X Subtract 8 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
\[
\begin{aligned}
& -3+7 x=53 \\
& \text { +3 }+3 \text { Add } 3 \text { to both sides } \\
& \underline{7 x}=\underline{56} \\
& \begin{array}{lll}
7 & 7 & \text { Divide both sides by } 7
\end{array}
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
4 y & = \\
& +8 \\
& \underline{+8}
\end{aligned} \quad \text { Add } 8 \text { to both sides } 0
\]

Select the answer: Add 8 to both sides and then divide both sides by 4

\section*{20) Problem \#PRAB4RT "PRAB4RT - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{z}-7=5\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(2 \mathrm{z}-7=5\)
\(+7 \quad \underline{+7} \quad\) Add 7 to both sides
\(\underline{2 z}=\underline{12}\)
22 Divide both sides by 2

Select the answer: Add 7 to both sides and then divide both sides by 2

\section*{21) Problem \#PRAB4U9 "PRAB4U9 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\[
-6+8 z=42 ?
\]

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 6} 6\) to both sides and then divide both sides by 8
X Subtract 6 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x \\
&+8=52 \\
&+8 \\
& \underline{5}=\frac{+8}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
& -6+8 \mathrm{z}=42 \\
& +6 \quad+6 \text { Add } 6 \text { to both sides } \\
& \underline{8 z}=\underline{48} \\
& 8 \quad 8 \quad \text { Divide both sides by } 8
\end{aligned}
\]

Select the answer: Add 6 to both sides and then divide both sides by 8

\section*{22) Problem \#PRAB4UP "PRAB4UP - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-5+8 a=51 ?\)

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 5 to both sides and then divide both sides by 8
X Subtract 5 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
+8 +8
\(\frac{5 x}{5}=\frac{60}{5}\)
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
```

-5 + 8a = 51
+5 +5 Add 5 to both sides
8a}=\underline{56
8 8 Divide both sides by 8

```

Select the answer: Add 5 to both sides and then divide both sides by 8
23) Problem \#PRAB4UR "PRAB4UR - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-8+6 z=40\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 8 \text { to both sides and then divide both sides by } 6}\)
X Subtract 8 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
-8 & +5 x= \\
+8 & \underline{52} \\
& \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{lr}
-8 & +6 \mathrm{z}= \\
+8 & 40 \\
+8
\end{array} \quad \text { Add } 8 \text { to both sides }
\]
\(\underline{6 z}=\underline{48}\)
\(6 \quad 6 \quad\) Divide both sides by 6

Select the answer: Add 8 to both sides and then divide both sides by 6

\section*{24) Problem \#PRAB4VV "PRAB4VV - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(5 \mathrm{x}-6=14\) ?
Multiple Choice:
\(\sqrt{\text { Add } 6} 6\) to both sides and then divide both sides by 5
X Subtract 6 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
5 x-8=52
\]
\[
+8 \quad \underline{+8}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(5 x-6=14\)
\(+6 \quad+6\) Add 6 to both sides
\(\underline{5 x}=\underline{20}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 6 to both sides and then divide both sides by 5
25) Problem \#PRAB4UH "PRAB4UH - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-6+4 x=14\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 6 to both sides and then divide both sides by 4
X Subtract 6 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
-8 & +5 x= \\
+8 & \underline{52} \\
& \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\begin{tabular}{rrr}
-6 & \(+4 \mathrm{x}=\) & 14 \\
+6 & & \(\underline{+6}\) \\
& Add 6 to both sides \\
& \(\underline{4 \mathrm{x}}\) & \(=\underline{20}\) \\
4 & & \\
& Divide both sides by 4
\end{tabular}

Select the answer: Add 6 to both sides and then divide both sides by 4

\section*{26) Problem \#PRAB4RZ "PRAB4RZ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(6 \mathrm{z}-6=18\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 6} 6\) to both sides and then divide both sides by 6
X Subtract 6 to both sides and then divide both sides by 6
http:
\(\boldsymbol{X}\) Divide both sides by 6 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(6 z-6=18\)
\(+6 \quad \underline{6}\) Add 6 to both sides
\(\underline{6 z}=\underline{24}\)
\(6 \quad 6 \quad\) Divide both sides by 6

Select the answer: Add 6 to both sides and then divide both sides by 6

\section*{27) Problem \#PRAB4V8 "PRAB4V8 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(4 \mathrm{z}-7=13\) ?
Multiple Choice:
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Subtract 7 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(4 z-7=13\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\(\underline{4 z}=\underline{20}\)
\(4 \quad 4 \quad\) Divide both sides by 4

Select the answer: Add 7 to both sides and then divide both sides by 4

\section*{28) Problem \#PRAB4VP "PRAB4VP - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(4 \mathrm{c}-2=26\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

4c \(-2=26\)
+2 +2 Add 2 to both sides
\(\underline{4 c}=\underline{28}\)
\(4 \quad 4\) Divide both sides by 4

Select the answer: Add 2 to both sides and then divide both sides by 4

\section*{29) Problem \#PRAB4U8 "PRAB4U8 - Explaining How to Solve an Equation"}
nttp: Which of the following statements explains the correct method to solve the equation
\(-3+5 c=32 ?\)

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 3 to both sides and then divide both sides by 5
X Subtract 3 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x= \\
&+8 \underline{52} \\
&+8 \\
& \frac{5 x}{5}=\frac{60}{5}
\end{aligned}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-3+5 c=32\)
+3
+3 Add 3 to both sides
\(\underline{5 c}=\underline{35} \quad\) Divide both sides by 5

Select the answer: Add 3 to both sides and then divide both sides by 5

\section*{30) Problem \#PRAB4WK "PRAB4WK - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{y}-3=32\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 3} 3\) to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
& 7 \mathrm{y}-3=32 \\
&+3 \underline{+3} \quad \text { Add } 3 \text { to both sides } \\
& \underline{7 y}=\underline{35}
\end{aligned}
\]
\(\begin{array}{lll}7 & 7 & \text { Divide both sides by } 7\end{array}\)

\section*{31) Problem \#PRAB4UC "PRAB4UC - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-3+7 y=32 ?\)
Multiple Choice:
\(\sqrt{\text { Add } 3 \text { to both sides and then divide both sides by } 7}\)
X Subtract 3 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{r}
-8+5 x= \\
+82 \\
+8 \\
\underline{5 x} \\
\hline
\end{array} \begin{array}{r}
\underline{+8} \\
x
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{rrr}
-3 & +7 y= & 32 \\
+3 & & \\
& \underline{+3} & \text { Add } 3 \text { to both sides } \\
& \underline{y y} \begin{array}{c}
y \\
7
\end{array} & \underline{35}
\end{array} \quad \begin{aligned}
& \text { Divide both sides by } 7
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 7

\section*{32) Problem \#PRAB4V7 "PRAB4V7 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(6 \mathrm{c}-2=34\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & +8
\end{array}
\]
\[
\begin{aligned}
& \frac{5 x}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
6 c-2= & 34 \\
+2 & \underline{+2} \text { Add } 2 \text { to both sides } \\
\underline{6 c}= & \underline{36} \\
6 & \text { Divide both sides by } 6
\end{aligned}
\]

Select the answer: Add 2 to both sides and then divide both sides by 6

\section*{33) Problem \#PRAB4VM "PRAB4VM - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{x}-7=49\) ?

\section*{Multiple Choice:}

X Subtract 7 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 7 to both sides
X Divide both sides by 8 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
8 \mathrm{x}-7 & =49 \\
& +7 \quad \underline{+7} \quad \text { Add } 7 \text { to both sides }
\end{aligned}
\]
\(\underline{8 x}=\underline{56}\)
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 7 to both sides and then divide both sides by 8

\section*{34) Problem \#PRAB4WB "PRAB4WB - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{x}-6=50\) ?
Multiple Choice:
\(\sqrt{\text { Add } 6 \text { to both sides and then divide both sides by } 8}\)
X Subtract 6 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(8 \mathrm{x}-6=50\)
\(+6 \quad+6\) Add 6 to both sides
\[
\underline{8 x}=\underline{56}
\]
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 6 to both sides and then divide both sides by 8
35) Problem \#PRAB4VY "PRAB4VY - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation \(4 \mathrm{z}-2=26\) ?

\section*{Multiple Choice:}

Add 2 to both sides and then divide both sides by 4
- Subtract 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 2 to both sides
X Divide both sides by 4 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
4 z-2=26
\]
+2 +2 Add 2 to both sides
\[
\underline{4 z}=\underline{28}
\]
\(4 \quad 4 \quad\) Divide both sides by 4

Select the answer: Add 2 to both sides and then divide both sides by 4

\section*{36) Problem \#PRAB4VD "PRAB4VD - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-7+8 y=9 ?\)

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 8
X Subtract 7 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 7 to both sides
\(\mathbf{X}\) Divide both sides by 8 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8
\end{array}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-7 \quad+8 y=9\)
\(+7 \quad \underline{7} \quad\) Add 7 to both sides
\(\underline{8 y}=\underline{16}\)
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 7 to both sides and then divide both sides by 8

\section*{37) Problem \#PRAB4VF "PRAB4VF - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-8+5 x=12\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 8 \text { to both sides and then divide both sides by } 5}\)
X Subtract 8 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x= \\
&+8 \\
&+8 \\
& \frac{+8}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-8 & +5 x= \\
+8 & \\
& \underline{+8} \quad \text { Add } 8 \text { to both sides } \\
& \underline{5 x}= \\
& \underline{20}
\end{aligned} \quad \begin{aligned}
& \text { Divide both sides by } 5
\end{aligned}
\]

Select the answer: Add 8 to both sides and then divide both sides by 5
\(\sqrt{\text { Add } 4} 4\) to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Subtract 4 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(6 z-4=20\)
\(+4 \quad \underline{4}\) Add 4 to both sides
\(\underline{6 z}=\underline{24}\)
\(6 \quad 6 \quad\) Divide both sides by 6

Select the answer: Add 4 to both sides and then divide both sides by 6

\section*{39) Problem \#PRAB4UT "PRAB4UT - Explaining How to Solve an Equation"}
\({ }^{n t t p}\). Which of the following statements explains the correct method to solve the equation
\(-3+6 a=27 ?\)

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 3 \text { to both sides and then divide both sides by } 6}\)
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
& \underline{+8} \\
\frac{5 x}{5} & =\frac{60}{5}
\end{array}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
-3+6 a=27
\]
+3 Add 3 to both sides
\(\underline{6 a}=\underline{30}\)
\(6 \quad 6 \quad\) Divide both sides by 6

Select the answer: Add 3 to both sides and then divide both sides by 6

\section*{40) Problem \#PRAB4U3 "PRAB4U3 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-7+3 z=5\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7 \text { to both sides and then divide both sides by } 3}\)
X Subtract 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8
\end{array}
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-7+3 z=5\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\(\underline{3 \mathrm{z}}=\underline{12}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 7 to both sides and then divide both sides by 3

\section*{41) Problem \#PRAB4VS "PRAB4VS - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{x}-7=3\) ?
Multiple Choice:
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 2
X Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(2 x-7=3\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\(\underline{2 x}=\underline{10}\)
22 Divide both sides by 2

Select the answer: Add 7 to both sides and then divide both sides by 2
42) Problem \#PRAB4RV "PRAB4RV - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation \(3 x-5=4\) ?

\section*{Multiple Choice:}

Add 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad+8\)
\[
\begin{aligned}
& \frac{5 x}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(3 x-5=4\)
+5 +5 Add 5 to both sides
\(\underline{3 x}=\underline{9}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 5 to both sides and then divide both sides by 3
43) Problem \#PRAB4VX "PRAB4VX - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation \(4 \mathrm{c}-2=6\) ?

\section*{Multiple Choice:}

Add 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad \underline{+8}\)
\(\underline{5 x}=\underline{60}\)
\(5 \quad 5\)
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
4 \mathrm{c}-2= & 6 \\
& +2 \quad \underline{2} \text { Add } 2 \text { to both sides }
\end{aligned}
\]
\(\underline{4 c}=\underline{8}\)
\(4 \quad 4\) Divide both sides by 4

Select the answer: Add 2 to both sides and then divide both sides by 4

\section*{44) Problem \#PRAB4UA "PRAB4UA - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-2+2 b=14\) ?
Multiple Choice:
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 2 to both sides
\(\mathbf{X}\) Divide both sides by 2 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{r}
-8+5 x= \\
+82 \\
+8 \\
\underline{5 x} \\
\hline \frac{+8}{5} \\
\\
x=\frac{60}{5} \\
x
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
```

ntp: }\quad-2+2b=1
+2 +2 Add 2 to both sides
2b}=\underline{16
2 Divide both sides by 2

```

Select the answer: Add 2 to both sides and then divide both sides by 2
45) Problem \#PRAB4UB "PRAB4UB - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-8+2 \mathrm{a}=2\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 8 \text { to both sides and then divide both sides by } 2}\)
X Subtract 8 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 8 to both sides
Hints:
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
-8 & +5 x= \\
+8 & \underline{52} \\
& \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-8 & +2 \mathrm{a}= \\
+8 & \\
& \underline{+8} \quad \text { Add } 8 \text { to both sides } \\
\underline{2 \mathrm{a}} & =\underline{10} \\
& \\
2 & \text { Divide both sides by } 2
\end{aligned}
\]

Select the answer: Add 8 to both sides and then divide both sides by 2
46) Problem \#PRAB4VA "PRAB4VA - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-7+3 c=2\) ?

\section*{Multiple Choice:}

Add 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x= \\
&+8 \underline{52} \\
&+8
\end{aligned}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-7+3 c=2\)
+7
\(\pm 7\) Add 7 to both sides
\(\underline{3 c}=\underline{9}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 7 to both sides and then divide both sides by 3

\section*{47) Problem \#PRAB4WA "PRAB4WA - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{a}-5=9\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 7
X Subtract 5 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(7 \mathrm{a}-5=9\)
+5 + 5 Add 5 to both sides
\(\underline{7 a}=\underline{14}\)
\(\begin{array}{lll}7 & 7 & \text { Divide both sides by } 7\end{array}\)

Select the answer: Add 5 to both sides and then divide both sides by 7

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 4} 4\) to both sides and then divide both sides by 3
X Subtract 4 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

3a - \(4=20\)
\(+4 \quad \underline{4}\) Add 4 to both sides
\(\underline{3 a}=\underline{24}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 4 to both sides and then divide both sides by 3

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 2} 2\) to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & +8
\end{array}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(3 y-2=13\)
+2 +2 Add 2 to both sides
\(\underline{3 y}=\underline{15}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 2 to both sides and then divide both sides by 3

\section*{50) Problem \#PRAB4U6 "PRAB4U6 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-5+2 b=5 ?\)

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\(+8 \quad+8\)
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
-5+2 b=5
\]
\(+5 \quad+5 \quad\) Add 5 to both sides
\(\underline{2 \mathrm{~b}}=\underline{10}\)
22 Divide both sides by 2

Select the answer: Add 5 to both sides and then divide both sides by 2

\section*{51) Problem \#PRAB4UD "PRAB4UD - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-6+6 c=36\) ?
Multiple Choice:
\(\sqrt{\text { Add } 6} 6\) to both sides and then divide both sides by 6
X Subtract 6 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
& \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-6 & +6 c= \\
+6 & \\
& \underline{+6} \quad \text { Add } 6 \text { to both sides } \\
\underline{6 c}= & \underline{42} \\
& \\
& \text { Divide both sides by } 6
\end{aligned}
\]

Select the answer: Add 6 to both sides and then divide both sides by 6
52) Problem \#PRAB4RS "PRAB4RS - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{c}-7=14\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 7
X Subtract 7 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

7c \(-7=14\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\(\underline{7 c}=\underline{21}\)
\(\begin{array}{lll}7 & 7 & \text { Divide both sides by } 7\end{array}\)

Select the answer: Add 7 to both sides and then divide both sides by 7

\section*{53) Problem \#PRAB4VZ "PRAB4VZ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{~b}-7=9\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 7 to both sides and then divide both sides by 2
X Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(+7 \quad+7\) Add 7 to both sides
\(\underline{2 b}=\underline{16}\)
22 Divide both sides by 2

Select the answer: Add 7 to both sides and then divide both sides by 2

\section*{54) Problem \#PRAB4WD "PRAB4WD - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{~b}-5=43\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8}
\end{array}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

8b \(-5=43\)
+5 + 5 Add 5 to both sides
\(\underline{8 \mathrm{~b}}=\underline{48}\)
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 5 to both sides and then divide both sides by 8

\section*{55) Problem \#PRAB4T8 "PRAB4T8 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-5+5 x=15 ?\)
Multiple Choice:
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 5

X Subtract 5 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x= \\
&+8 \\
&+82 \\
& \frac{+8}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-5 \\
+5
\end{aligned} \quad \begin{aligned}
+5 \mathrm{x}= & 15 \\
& \underline{+5} \quad \text { Add } 5 \text { to both sides } \\
\underline{5 x} & =\underline{20} \\
& \\
& \text { Divide both sides by } 5
\end{aligned}
\]

Select the answer: Add 5 to both sides and then divide both sides by 5

\section*{56) Problem \#PRAB4WJ "PRAB4WJ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 y-4=44\) ?

\section*{Multiple Choice:}

Add 4 to both sides and then divide both sides by 8
X Subtract 4 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{r}
5 x-8=52 \\
+8=\underline{+8} \\
\underline{5 x}=\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(8 y-4=44\)
\(+4 \quad+4 \quad\) Add 4 to both sides
\(\underline{8 y}=\underline{48}\)
\(8 \quad 8 \quad\) Divide both sides by 8

Select the answer: Add 4 to both sides and then divide both sides by 8

\section*{57) Problem \#PRAB4RY "PRAB4RY - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(4 \mathrm{x}-2=6\) ?

\section*{Multiple Choice:}

Add 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad \underline{+8}\)
\(\underline{5 x}=\underline{60}\)
55
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
4 \mathrm{x}-2 & =6 \\
+2 & \underline{+2} \\
& \text { Add } 2 \text { to both sides } \\
\underline{4 x}= & \underline{8} \\
4 & \text { Divide both sides by } 4
\end{aligned}
\]

Select the answer: Add 2 to both sides and then divide both sides by 4

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{c}-4=44\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Subtract 4 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
8 \mathrm{c}-4 & =44 \\
+4 & \underline{+4}
\end{aligned} \quad \text { Add } 4 \text { to both sides } \quad \begin{array}{rl}
\underline{8 c} & =\underline{48} \\
8 & 8
\end{array} \quad \text { Divide both sides by } 8 .
\]

Select the answer: Add 4 to both sides and then divide both sides by 8
\(\qquad\)

\section*{59) Problem \#PRAB4U2 "PRAB4U2 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-8+8 a=24 ?\)

\section*{Multiple Choice:}

X Subtract 8 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\[
+8 \quad \underline{+8}
\]
```

5x = 60
5 5

```
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{rlr}
-8 & +8 \mathrm{a}= & 24 \\
+8 & \underline{8} \quad \text { Add } 8 \text { to both sides }
\end{array}
\]
\[
\frac{8 \mathrm{a}}{8}=\frac{32}{8} \quad \text { Divide both sides by } 8
\]

Select the answer: Add 8 to both sides and then divide both sides by 8

\section*{60) Problem \#PRAB4U5 "PRAB4U5 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\[
-6+5 x=29 ?
\]

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 6} 6\) to both sides and then divide both sides by 5
X Subtract 6 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
http: \(+8 \quad \underline{8}\)
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-6+5 x=29\)
\(+6 \quad+6 \quad\) Add 6 to both sides
\(\underline{5 x}=\underline{35}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 6 to both sides and then divide both sides by 5

\section*{61) Problem \#PRAB4UJ "PRAB4UJ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-3+3 x=9\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 3 \text { to both sides and then divide both sides by } 3}\)
X Subtract 3 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\[
+8 \quad+8
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-3+3 x=9\)
\(+3 \quad+3 \quad\) Add 3 to both sides
\(\underline{3 x}=\underline{12}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 3 to both sides and then divide both sides by 3

\section*{62) Problem \#PRAB4VE "PRAB4VE - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-3+3 b=21\) ?

\section*{Multiple Choice:}

Add 3 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
-8+5 x= & 52 \\
+8 & +8
\end{aligned}
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
& -3+3 b=21 \\
& \text { +3 }+3 \text { Add } 3 \text { to both sides } \\
& \underline{3 \mathrm{~b}}=\underline{24} \\
& 3 \quad 3 \text { Divide both sides by } 3
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 3

\section*{63) Problem \#PRAB4VQ "PRAB4VQ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{~b}-3=32\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 3} 3\) to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
& +3 \quad \underline{+3} \text { Add } 3 \text { to both sides } \\
& \frac{7 \mathrm{~b}}{7}=\underline{\frac{35}{7}} \text { Divide both sides by } 7
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 7

\section*{64) Problem \#PRAB4UY "PRAB4UY - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-3+8 x=45 ?\)

\section*{Multiple Choice:}

\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
-8+5 x= & 52 \\
+8 & \underline{+8} \\
\underline{5} & =\underline{60} \\
5 & \\
x & 12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
& -3+8 \mathrm{x}=45 \\
& +3 \quad+3 \quad \text { Add } 3 \text { to both sides } \\
& \underline{8 \mathrm{x}}=\underline{48} \\
& 8 \quad 8 \quad \text { Divide both sides by } 8
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 8

\section*{65) Problem \#PRAB4VN "PRAB4VN - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{c}-7=5\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 7 to both sides and then divide both sides by 2
X Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

2c \(-7=5\)
\(+7 \quad+7 \quad\) Add 7 to both sides
\[
\underline{2 c}=\underline{12}
\]

22 Divide both sides by 2

Select the answer: Add 7 to both sides and then divide both sides by 2

\section*{66) Problem \#PRAB4V3 "PRAB4V3 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{z}-3=9\) ?

\section*{Multiple Choice:}

Add 3 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(2 \mathrm{z}-3=9\)
+3 +3 Add 3 to both sides
\(\underline{2 z}=\underline{12}\)
22 Divide both sides by 2

Select the answer: Add 3 to both sides and then divide both sides by 2

\section*{67) Problem \#PRAB4VH "PRAB4VH - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{z}-6=43\) ?

\section*{Multiple Choice:}

Add 6 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 6 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad+8\)
\(\underline{5 x}=\underline{60}\)
55
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(7 \mathrm{z}-6=43\)
\(+6 \quad\) +6 Add 6 to both sides
\(\underline{7 \mathrm{z}}=\underline{49}\)
\(\begin{array}{lll}7 & 7 & \text { Divide both sides by } 7\end{array}\)

Select the answer: Add 6 to both sides and then divide both sides by 7

Which of the following statements explains the correct method to solve the equation
\(-8+3 b=-2\) ?

\section*{Multiple Choice:}

Add 8 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 8 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(-8+5 x=52\)
\(+8 \quad+8\)
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{rlrl}
-8 & +3 \mathrm{~b}= & -2 & \\
+8 & \underline{+8} & \text { Add } 8 \text { to both sides } \\
& \underline{3 \mathrm{~b}}= & \underline{6} \\
& \\
& \\
& \text { Divide both sides by } 3
\end{array}
\]

Select the answer: Add 8 to both sides and then divide both sides by 3

\section*{69) Problem \#PRAB4VC "PRAB4VC - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\[
-2+3 c=10 ?
\]

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8 & +8
\end{array}
\]
```

5x = 60
5 5
x = 12

```
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
&-2 \\
&+2+3 \mathrm{c}= \\
& 10 \\
& \underline{+2} \quad \text { Add } 2 \text { to both sides } \\
& \underline{3 c}= \underline{12} \\
& \\
& \text { Divide both sides by } 3
\end{aligned}
\]

Select the answer: Add 2 to both sides and then divide both sides by 3

\section*{70) Problem \#PRAB4UK "PRAB4UK - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-4+2 \mathrm{z}=4\) ?
Multiple Choice:
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 2
X Subtract 4 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
```

nttp: -8 + 5x = 52
+8 +8
5x = 60
5 5
x = 12

```
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-4 \quad+2 \mathrm{z}=4\)
\(+4 \quad \underline{4} \quad\) Add 4 to both sides
\(\underline{2 z}=\underline{8}\)

Select the answer: Add 4 to both sides and then divide both sides by 2

\section*{71) Problem \#PRAB4UG "PRAB4UG - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-6+5 a=34 ?\)

\section*{Multiple Choice:}
- Add 6 to both sides and then divide both sides by 5
* Subtract 6 to both sides and then divide both sides by 5
* Divide both sides by 5 and then add 6 to both sides
* Divide both sides by 5 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
-8 & +5 x \\
+8 & =52 \\
+\underline{+8} \\
\underline{5} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{rr}
-6 & +5 a= \\
+6 & 34 \\
& \underline{+6} \quad \text { Add } 6 \text { to both sides }
\end{array}
\]
\[
\underline{5 \mathrm{a}}=\underline{40} 5 \quad \text { Divide both sides by } 5
\]

Select the answer: Add 6 to both sides and then divide both sides by 5

\section*{72) Problem \#PRAB4VJ "PRAB4VJ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{~b}-7=5\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 2
X Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x & -8 \\
+8 & \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
2 \mathrm{~b} & -7 \\
& =5 \\
+7 & \underline{+7} \text { Add } 7 \text { to both sides } \\
\underline{2 b} & =\underline{12}
\end{aligned}
\]

22 Divide both sides by 2

Select the answer: Add 7 to both sides and then divide both sides by 2

\section*{73) Problem \#PRAB4U7 "PRAB4U7 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-2+8 z=14 ?\)

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 8
Divide both sides by 8 and then add 2 to both sides
Divide both sides by 8 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
& \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
```

-2 + 8z = 14
+2 +2 Add 2 to both sides
8z = 16
8 Divide both sides by 8

```

Select the answer: Add 2 to both sides and then divide both sides by 8

\section*{74) Problem \#PRAB4V4 "PRAB4V4 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{y}-4=12\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 4} 4\) to both sides and then divide both sides by 8
X Subtract 4 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(8 y-4=12\)
\(+4 \quad \underline{4}\) Add 4 to both sides
\(\underline{8 y}=\underline{16}\)
\(8 \quad 8 \quad\) Divide both sides by 8

Select the answer: Add 4 to both sides and then divide both sides by 8

\section*{75) Problem \#PRAB4WM "PRAB4WM - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(6 \mathrm{x}-6=36\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 6} 6\) to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Subtract 6 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 6 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 6 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8}
\end{array}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
6 \mathrm{x}-6 & =36 \\
+6 & \underline{+6} \quad \text { Add } 6 \text { to both sides } \\
\underline{6 x} & =\frac{42}{6}
\end{aligned}
\]

Select the answer: Add 6 to both sides and then divide both sides by 6

\section*{76) Problem \#PRAB4WE "PRAB4WE - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{x}-8=48\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 8 \text { to both sides and then divide both sides by } 7}\)
X Subtract 8 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(5 x-8=52\)
\(+8 \quad \underline{+8}\)
\(\underline{5 x}=\underline{60}\)
5 5
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
7 \mathrm{x}-8 & =48 \\
+8 & \underline{+8} \quad \text { Add } 8 \text { to both sides } \\
\underline{7 x} & =\underline{56} \\
& \\
7 & \text { Divide both sides by } 7
\end{aligned}
\]

Select the answer: Add 8 to both sides and then divide both sides by 7

\section*{77) Problem \#PRAB4UW "PRAB4UW - Explaining How to Solve an Equation"} Which of the following statements explains the correct method to solve the equation
\[
-3+6 y=33 ?
\]

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 3} 3\) to both sides and then divide both sides by 6
X Subtract 3 to both sides and then divide both sides by 6
\(\boldsymbol{X}\) Divide both sides by 6 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 6 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x= \\
&+8 \\
&+82 \\
& \frac{+8}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-3 & +6 y= \\
+3 & \\
& \\
& \underline{+3}
\end{aligned} \quad \text { Add } 3 \text { to both sides }
\]

\section*{78) Problem \#PRAB4RQ "PRAB4RQ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(2 \mathrm{z}-7=-3\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{array}{rlr}
2 z-7 & =-3 \\
& +7 & \underline{+7} \\
& \text { Add } 7 \text { to both sides } \\
\underline{2 z}= & \underline{4} \\
2 & 2 & \text { Divide both sides by } 2
\end{array}
\]

Select the answer: Add 7 to both sides and then divide both sides by 2

\section*{79) Problem \#PRAB4WR "PRAB4WR - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(5 \mathrm{x}-4=11\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 5
X Subtract 4 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
5 x-8 & =52 \\
+8 & \underline{+8}
\end{aligned}
\]
\[
\begin{aligned}
& \frac{5 x}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
& 5 \mathrm{x}-4=11 \\
& +4 \quad \underline{4} \text { Add } 4 \text { to both sides } \\
& \underline{5 x}=\underline{15} \\
& 5 \quad 5 \text { Divide both sides by } 5
\end{aligned}
\]

Select the answer: Add 4 to both sides and then divide both sides by 5

\section*{80) Problem \#PRAB4WP "PRAB4WP - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{a}-4=24\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 4 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 4 to both sides
\(\mathbf{X}\) Divide both sides by 7 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(7 \mathrm{a}-4=24\)
\(+4 \quad\) +4 Add 4 to both sides
\(\underline{7 a}=\underline{28}\)

Select the answer: Add 4 to both sides and then divide both sides by 7

\section*{81) Problem \#PRAB4V2 "PRAB4V2 - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(4 y-4=16\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Subtract 4 to both sides and then divide both sides by 4
\(\boldsymbol{X}\) Divide both sides by 4 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 4 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{gathered}
4 \mathrm{y} \begin{aligned}
-4 & =16 \\
+4 & \underline{+4}
\end{aligned} \text { Add } 4 \text { to both sides } \\
\\
4 \mathrm{y}= \\
4
\end{gathered}
\]

Select the answer: Add 4 to both sides and then divide both sides by 4

\section*{82) Problem \#PRAB4RX "PRAB4RX - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{~b}-2=46\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x & -8 \\
+8 & \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
& 8 \mathrm{~b}-2=46 \\
&+2 \underline{2} \\
& \\
& \underline{8 \mathrm{~b}}=\underline{48}
\end{aligned}
\]
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 2 to both sides and then divide both sides by 8

\section*{83) Problem \#PRAB4WF "PRAB4WF - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(7 \mathrm{a}-4=52\) ?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 4 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Subtract 4 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 4 to both sides
nttp: Hints:
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & -8 & 52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(7 \mathrm{a}-4=52\)
\(+4 \quad \underline{4}\) Add 4 to both sides
\(\underline{7 a}=\underline{56}\)
\(\begin{array}{lll}7 & 7 & \text { Divide both sides by } 7\end{array}\)

Select the answer: Add 4 to both sides and then divide both sides by 7

\section*{84) Problem \#PRAB4RU "PRAB4RU - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation 5a-3=32?

\section*{Multiple Choice:}
\(\sqrt{\text { Add }} 3\) to both sides and then divide both sides by 5
X Subtract 3 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
nttp: - This is how to solve this problem.
\[
\begin{aligned}
5 \mathrm{a}-3 & =32 \\
+3 & \underline{+3}
\end{aligned} \text { Add } 3 \text { to both sides } \quad \begin{aligned}
& \underline{5 a}=\underline{35} \\
& 5 \\
& 5
\end{aligned} \text { Divide both sides by } 5
\]

Select the answer: Add 3 to both sides and then divide both sides by 5
85) Problem \#PRAB4VG "PRAB4VG - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation
\(-3+2 \mathrm{a}=1\) ?
Multiple Choice:
\(\sqrt{ }\) Add 3 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 2
\(\boldsymbol{x}\) Divide both sides by 2 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
-8+5 x=52
\]
\[
+8 \quad+8
\]
\[
\frac{5 x}{5}=\frac{60}{5}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-3 & +2 \mathrm{a}= \\
+3 & \\
& \underline{+3} \\
& \\
& \text { Add } 3 \text { to both sides } \\
& \underline{2 a} \\
& =\underline{4}
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 2

\section*{86) Problem \#PRAB4UX "PRAB4UX - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
http
\(-3+8 a=37\) ?

\section*{Multiple Choice:}

Add 3 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Subtract 3 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 3 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 3 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
+8 \\
\frac{5 x}{5} & =\frac{60}{5}
\end{array}
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
-3 \\
+3
\end{aligned} \quad+8 \mathrm{a}=\begin{aligned}
& 37 \\
& \\
& \\
& \\
& \underline{+3} \quad \text { Add } 3 \text { to both sides } \\
& \\
& \underline{8} \quad= \\
& \\
& \\
& 8
\end{aligned}
\]

Select the answer: Add 3 to both sides and then divide both sides by 8

\section*{87) Problem \#PRAB4RR "PRAB4RR - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(3 \mathrm{a}-5=4\) ?

\section*{Multiple Choice:}

Add 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8}
\end{array}
\]
\[
\underline{5 x}=\underline{60}
\]
\[
5 \quad 5
\]
\[
x=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.

3a \(-5=4\)
\(+5 \quad \underline{5}\) Add 5 to both sides
\[
\underline{3 a}=\underline{9}
\]
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 5 to both sides and then divide both sides by 3

\section*{88) Problem \#PRAB4SD "PRAB4SD - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-7+2 z=9\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 2
X Subtract 7 to both sides and then divide both sides by 2
\(\boldsymbol{X}\) Divide both sides by 2 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 2 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x \\
&+8=52 \\
&+8 \\
& \underline{5}=\frac{+8}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-7+2 z=9\)
\(+7 \quad \underline{+7} \quad\) Add 7 to both sides
\(\underline{2 \mathrm{z}}=\underline{16}\)
22 Divide both sides by 2

Select the answer: Add 7 to both sides and then divide both sides by 2

\section*{89) Problem \#PRAB4WS "PRAB4WS - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation 5a-8=12?

\section*{Multiple Choice:}
\(\sqrt{ }\) Add 8 to both sides and then divide both sides by 5
X Subtract 8 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8}
\end{array}
\]
\[
\begin{aligned}
& \frac{5 x}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(5 \mathrm{a}-8=12\)
\(+8 \quad \underline{+8}\) Add 8 to both sides
\(\underline{5 a}=\underline{20}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 8 to both sides and then divide both sides by 5

\section*{90) Problem \#PRAB4UF "PRAB4UF - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-7+3 y=17 ?\)
Multiple Choice:
\(\sqrt{\text { Add } 7 \text { to both sides and then divide both sides by } 3}\)
X Subtract 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
```

http: -8 + 5x = 52
+8 +8
5x = 60
5 5
x = 12

```
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{array}{lrr}
-7 & +3 y= & 17 \\
+7 & \underline{+7} & \text { Add } 7 \text { to both sides }
\end{array}
\]
\[
\underline{3} y=\underline{24}
\]

Select the answer: Add 7 to both sides and then divide both sides by 3

\section*{91) Problem \#PRAB4WN "PRAB4WN - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(3 \mathrm{z}-7=8\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 7} 7\) to both sides and then divide both sides by 3
X Subtract 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\frac{5 x}{5} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
3 \mathrm{z}-7 & =8 \\
+7 & \underline{+7} \\
& \text { Add } 7 \text { to both sides } \\
\underline{3 z} & =\underline{15} \\
3 &
\end{aligned}
\]

Select the answer: Add 7 to both sides and then divide both sides by 3

\section*{92) Problem \#PRAB4UU "PRAB4UU - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-4+7 y=24\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 4} 4\) to both sides and then divide both sides by 7
X Subtract 4 to both sides and then divide both sides by 7
\(\boldsymbol{X}\) Divide both sides by 7 and then add 4 to both sides
\(\boldsymbol{X}\) Divide both sides by 7 and then subtract 4 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
-8 & +5 x= \\
+8 & \underline{52} \\
& \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
& -4 \quad+7 y=24 \\
& +4 \quad+4 \quad \text { Add } 4 \text { to both sides } \\
& \underline{7} \mathrm{y}=\underline{28} \\
& \begin{array}{lll}
7 & 7 & \text { Divide both sides by } 7
\end{array}
\end{aligned}
\]

Select the answer: Add 4 to both sides and then divide both sides by 7

\section*{93) Problem \#PRAB4UV "PRAB4UV - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-5+6 y=19 ?\)
Multiple Choice:
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 6
X Subtract 5 to both sides and then divide both sides by 6
http:
Divide both sides by 6 and then add 5 to both sides
Divide both sides by 6 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
& \underline{+8} \\
\underline{5} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-5 \quad+6 y=19\)
+5
+5 Add 5 to both sides
\(\underline{6 y}=\underline{24}\)
\(6 \quad 6 \quad\) Divide both sides by 6

Select the answer: Add 5 to both sides and then divide both sides by 6

\section*{94) Problem \#PRAB4UE "PRAB4UE - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-7+3 z=8\) ?
Multiple Choice:
\(\sqrt{\text { Add } 7 \text { to both sides and then divide both sides by } 3}\)
X Subtract 7 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{aligned}
&-8+5 x= \\
&+8 \\
&+82 \\
& \frac{+8}{5}=\frac{60}{5} \\
& x=12
\end{aligned}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
\begin{aligned}
& -7+3 \mathrm{z}=8 \\
& +7 \quad \underline{7} \quad \text { Add } 7 \text { to both sides } \\
& \underline{3 z}=\underline{15} \\
& 3 \quad 3 \text { Divide both sides by } 3
\end{aligned}
\]

Select the answer: Add 7 to both sides and then divide both sides by 3
\(\sqrt{ }\) Add 2 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Subtract 2 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 2 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 2 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 x-8 & =52 \\
+8 & \underline{+8} \\
\frac{5 x}{5} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
\begin{aligned}
5 \mathrm{~b}-2 & =13 \\
+2 & \underline{+2}
\end{aligned} \quad \text { Add } 2 \text { to both sides }
\]

Select the answer: Add 2 to both sides and then divide both sides by 5

\section*{96) Problem \#PRAB4UM "PRAB4UM - Explaining How to Solve an Equation"}
\({ }^{n t t p}\). Which of the following statements explains the correct method to solve the equation
\(-5+5 b=5 ?\)

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 5} 5\) to both sides and then divide both sides by 5
X Subtract 5 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rl}
-8 & +5 x= \\
+8 & 52 \\
& \underline{+8} \\
\frac{5 x}{5} & =\frac{60}{5}
\end{array}
\]
\[
\mathrm{x}=12
\]
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\[
-5+5 b=5
\]
\[
+5 \text { Add } 5 \text { to both sides }
\]
\(\underline{5 \mathrm{~b}}=\underline{10}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 5 to both sides and then divide both sides by 5

\section*{97) Problem \#PRAB4WQ "PRAB4WQ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation \(5 \mathrm{z}-8=2\) ?

\section*{Multiple Choice:}
\(\sqrt{\text { Add } 8 \text { to both sides and then divide both sides by } 5}\)
\(\boldsymbol{X}\) Subtract 8 to both sides and then divide both sides by 5
\(\boldsymbol{X}\) Divide both sides by 5 and then add 8 to both sides
\(\boldsymbol{X}\) Divide both sides by 5 and then subtract 8 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rr}
5 \mathrm{x}-8 & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\underline{60} \\
5
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\(5 z-8=2\)
\(+8 \quad \underline{+8}\) Add 8 to both sides
\(\underline{5 z}=\underline{10}\)
\(5 \quad 5\) Divide both sides by 5

Select the answer: Add 8 to both sides and then divide both sides by 5
98) Problem \#PRAB4WG "PRAB4WG - Explaining How to Solve an Equation"

Which of the following statements explains the correct method to solve the equation \(8 \mathrm{z}-7=17\) ?
Multiple Choice:
\(\sqrt{\text { Add } 7 \text { to both sides and then divide both sides by } 8}\)
\(\boldsymbol{X}\) Subtract 7 to both sides and then divide both sides by 8
\(\boldsymbol{X}\) Divide both sides by 8 and then add 7 to both sides
\(\boldsymbol{X}\) Divide both sides by 8 and then subtract 7 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\[
\begin{array}{rrr}
5 x & =52 \\
+8 & \underline{+8} \\
\underline{5 x} & =\frac{60}{5} \\
x & =12
\end{array}
\]
- The first step to solve is to add or subtract on both sides of the equation.
- You should do the opposite of whatever sign is showing.
- This is how to solve this problem.
\[
8 z-7=17
\]
\(+7 \quad \underline{+7} \quad\) Add 7 to both sides
\(\underline{8 z}=\underline{24}\)
\(8 \quad 8\) Divide both sides by 8

Select the answer: Add 7 to both sides and then divide both sides by 8

\section*{99) Problem \#PRAB4UQ "PRAB4UQ - Explaining How to Solve an Equation"}

Which of the following statements explains the correct method to solve the equation
\(-5+3 b=1\) ?

\section*{Multiple Choice:}

Add 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Subtract 5 to both sides and then divide both sides by 3
\(\boldsymbol{X}\) Divide both sides by 3 and then add 5 to both sides
\(\boldsymbol{X}\) Divide both sides by 3 and then subtract 5 to both sides

\section*{Hints:}
- Here is how to solve a similar problem.
\(-8+5 x=52\)
+8
\(\underline{5 x}=\underline{60}\)
5 5
\(\mathrm{x}=12\)
- The first step to solve is to add or subtract on both sides of the equation.
- This is how to solve this problem.
\(-5+3 b=1\)
\(+5 \quad \pm \mathbf{5}\) Add 5 to both sides
\(\underline{3 b}=\underline{6}\)
\(3 \quad 3\) Divide both sides by 3

Select the answer: Add 5 to both sides and then divide both sides by 3

\section*{Problem Set "Solving 1-Step Addition \& Subtraction Equations 7.EE.B.4a" id:[РSАККV]}

\section*{Select All}
1) Problem \#PRABW3C "PRABW3C - Solving 1-Step Addition Equations"

Solve for c:
c \(+13=-17\)
Algebraic Expression:
\(\sqrt{-30}\)
Hints:

\section*{PSAHRE 0.1}


This is how to solve a problem similar to your problem.
\[
m+4=-25
\]
\[
-4
\]
\[
\frac{-4}{0 . c a t=1}
\]

\[
m=-29
\]

\section*{PSAHRE 1.1}


To solve you need to do the opposite of the sign in front of 13 . Therefore, you must subtract 13 from both sides of the equation.


This is what it should look like:
\[
\begin{aligned}
c+13 & =-17 \\
-13 & \underline{-13} \\
c & =-30
\end{aligned}
\]

Type in -30
2) Problem \#PRABW3D "PRABW3D - Solving 1-Step Addition Equations"

Solve for y :
\(y+5=-16\)
Algebraic Expression:
\(\sqrt{ }-21\)
Hints:

\section*{PSAHRE 0.1}

-
This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]


To solve you need to do the opposite of the sign in front of 5 . Therefore, you must subtract 5 from both sides of the equation.

\section*{PSAHRE 2.2}


This is what it should look like:
\[
\begin{aligned}
y+5 & =-16 \\
-5 & -\underline{-5} \\
y & =-21
\end{aligned}
\]

Type in -21
3) Problem \#PRABW3A "PRABW3A - Solving 1-Step Addition Equations"

Solve for c:
c \(+9=-13\)
Algebraic Expression:
\(\sqrt{-22}\)
 Hints:

\section*{PSAHRE 0.1}


This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+4 & =-25 \\
-4 & \underline{-4} \\
\mathrm{~m} & =-29
\end{aligned}
\]

PSAHRE 3.1


To solve you need to do the opposite of the sign in front of 9 . Therefore, you must subtract 9 from both sides of the equation.

\section*{PSAHRE 3.2}


This is what it should look like:
\[
\begin{aligned}
c+9 & =-13 \\
-9 & \underline{-9} \\
c & =-22
\end{aligned}
\]

Type in -22
4) Problem \#PRABW29 "PRABW29 - Solving 1-Step Addition Equations"

Solve for b:
b \(+9=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-27}\)
 Hints:
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 9 . Therefore, you must subtract 9 from both sides of the equation.
- This is what it should look like:
b +9 = -18
- 9 - \(\underline{9}\)

Type in -27
5) Problem \#PRABW3G "PRABW3G - Solving 1-Step Addition Equations"

Solve for a:
\(\mathrm{a}+7=-13\)
Algebraic Expression:
\(\sqrt{ }-20\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 7. Therefore, you must subtract 7 from both sides of the equation.
- This is what it should look like:
\(\mathrm{a}+7=-13\)
\(-7 \quad-7\)
\(\mathrm{a}=-20\)

Type in -20

6) Problem \#PRABW3E "PRABW3E - Solving 1-Step Addition Equations"

Solve for x :
\(x+14=-12\)
Algebraic Expression:
\(\sqrt{-26}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
x+14=-12 \\
-14 \quad \underline{-14} \\
x=-26
\end{array}
\]

Type in -26

\section*{7) Problem \#PRABW3F "PRABW3F - Solving 1-Step Addition Equations"}

Solve for y :
\(y+10=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ }-25\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 10 . Therefore, you must subtract 10 from both sides of the equation.
- This is what it should look like:
\[
-10 \quad \underline{-10}
\]
\[
y=-25
\]

Type in - 25
8) Problem \#PRABW3B "PRABW3B - Solving 1-Step Addition Equations"

Solve for c:
c \(+11=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ }\)-30

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
c+11=-19 \\
-11 \quad-11
\end{array}
\]
\[
\mathrm{c}=-30
\]

Type in -30
9) Problem \#PRABW28 "PRABW28 - Solving 1-Step Addition Equations"

Solve for b:
b + 11 = - 12

\section*{Algebraic Expression:}
\(\sqrt{ }-23\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4}
\end{aligned}
\]

\[
m=-29
\]
- To solve you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\(b+11=-12\)
- 11 - 11
b \(=-23\)

\section*{10) Problem \#PRABW3T "PRABW3T - Solving 1-Step Addition Equations"}

Solve for x :
\(x+12=-14\)

\section*{Algebraic Expression:}

ノ -26

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 12 . Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
x+12=-14 \\
-12 \quad \underline{-12}
\end{array}
\]
\[
x=-26
\]

Type in -26

\section*{11) Problem \#PRABW7K "PRABW7K - Solving 1-Step Addition Equations"}

Solve for y :
\[
y+(-20)=-19
\]
 \(\sqrt{ } 1\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+ & (-20)= \\
& +20 \quad+20
\end{aligned}
\]
\[
y=1
\]

Type in 1

\section*{12) Problem \#PRABW8C "PRABW8C - Solving 1-Step Addition Equations"}

Solve for a:
\(a+(-20)=-17\)
Algebraic Expression:
3

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
+4 & +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-17 \\
+20 & +20 \\
& \\
& =3
\end{aligned}
\]

Type in 3

\section*{13) Problem \#PRABW4A "PRABW4A - Solving 1-Step Addition Equations"}

Solve for c:
c \(+11=-16\)
Algebraic Expression:
-27

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+11= & -16 \\
-11 & -11
\end{aligned}
\]
\[
c=-27
\]

Type in -27

\section*{14) Problem \#PRABW3W "PRABW3W - Solving 1-Step Addition Equations"}

Solve for b :
b \(+7=-14\)

\section*{Algebraic Expression:}
\(\sqrt{-21}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 7. Therefore, you must subtract 7 from both sides of the equation.
- This is what it should look like:
\[
b+7=-14
\]
\[
-7 \quad-7
\]
\[
\mathrm{b}=-21
\]

Type in -21

\section*{15) Problem \#PRABW8A "PRABW8A - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-20\)

\section*{Algebraic Expression:}
\(\sqrt{ } 0\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & -25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-20 \\
+20 & \underline{+20} \\
y= & 0
\end{aligned}
\]

Type in 0

\section*{16) Problem \#PRABW5S "PRABW5S - Solving 1-Step Addition Equations"}

Solve for c:
c \(+(-20)=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m+(-4)=-25
\]

\[
m=-21
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-15 \\
+20 & +20 \\
& \\
& \\
& =5
\end{aligned}
\]
17) Problem \#PRABW7N "PRABW7N - Solving 1-Step Addition Equations"

Solve for b:
b \(+(-20)=-13\)
Algebraic Expression:
\(\sqrt{ } 7\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+(-20) & =-13 \\
+20 & +20 \\
& b=
\end{aligned}
\]

Type in 7

\section*{18) Problem \#PRABW3X "PRABW3X - Solving 1-Step Addition Equations"}

Solve for c :


\section*{Algebraic Expression:}
\(\sqrt{-20}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+4 & =-25 \\
-4 & \underline{-4} \\
\mathrm{~m} & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 8 . Therefore, you must subtract 8 from both sides of the equation.
- This is what it should look like:
c \(+8=-12\)

Type in -20

\section*{19) Problem \#PRABW78 "PRABW78 - Solving 1-Step Addition Equations"}

Solve for c:
c \(+(-20)=-12\)

\section*{Algebraic Expression:}

8

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-12 \\
+20 & +20 \\
& \\
& \\
& =8
\end{aligned}
\]

Type in 8

\section*{20) Problem \#PRABW4B "PRABW4B - Solving 1-Step Addition Equations"}

Solve for c:
c \(+16=-14\)

\section*{Algebraic Expression:}
\(\sqrt{ }-30\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4}
\end{aligned}
\]
\(m=-29\)
- To solve you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
c+16=-14 \\
-16 \quad-16
\end{array}
\]
c \(=-30\)

Type in -30
21) Problem \#PRABW7X "PRABW7X - Solving 1-Step Addition Equations"

Solve for b:
\(b+(-20)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.

\[
\begin{aligned}
b+ & (-20) \quad= \\
& +20 \quad+20
\end{aligned}
\]
\[
\mathrm{b}=1
\]

Type in 1
22) Problem \#PRABW4F "PRABW4F - Solving 1-Step Addition Equations"

Solve for c:
c \(+4=-18\)

\section*{Algebraic Expression:}

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 4 . Therefore, you must subtract 4 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+4 & =-18 \\
-4 & -4 \\
c & =-22
\end{aligned}
\]

Type in -22
23) Problem \#PRABW39 "PRABW39 - Solving 1-Step Addition Equations"

Solve for y :
\(y+9=-13\)
Algebraic Expression:
\(\sqrt{-22}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m=-29
\]
- To solve you need to do the opposite of the sign in front of 9 . Therefore, you must subtract 9 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+9 & =-13 \\
-9 & \underline{-9} \\
y & =-22
\end{aligned}
\]

Type in -22
24) Problem \#PRABW7W "PRABW7W - Solving 1-Step Addition Equations"

Solve for a:
\(a+(-20)=-13\)
Algebraic Expression:
7

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \quad+4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-13 \\
+20 & \underline{+20} \\
& \\
& =7
\end{aligned}
\]

Type in 7

\section*{25) Problem \#PRABW4C "PRABW4C - Solving 1-Step Addition Equations"}

\(y+18=-15\)

\section*{Algebraic Expression:}
-33

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & -4 \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
y+18=-15 \\
-18 \quad \underline{-18}
\end{array}
\]
\[
y=-33
\]

Type in -33

\section*{26) Problem \#PRABW3Z "PRABW3Z - Solving 1-Step Addition Equations"}

Solve for x :
\(x+5=-15\)
Algebraic Expression:
\(\sqrt{ }-20\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 5 . Therefore, you must subtract 5 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{rc}
x+5 & =-15 \\
-5 & -5
\end{array}
\]

Type in -20
27) Problem \#PRABW6H "PRABW6H - Solving 1-Step Addition Equations"

Solve for x :
\(x+(-20)=-20\)
Algebraic Expression:
\(\sqrt{ } 0\)
Hints:
- This is how to solve a problem similar to your problem.
\[
m+(-4)=-25
\]
\(+4 \quad+4\)
\(m=-21\)
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+(-20) & =-20 \\
+20 & +20 \\
& x=
\end{aligned}
\]

Type in 0

\section*{28) Problem \#PRABW3S "PRABW3S - Solving 1-Step Addition Equations"}

Solve for a:
\(a+3=-20\)
Algebraic Expression:
\(\sqrt{-23}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 3. Therefore, you must subtract 3 from
both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+3 & =-20 \\
-3 & \underline{-3} \\
a & =-23
\end{aligned}
\]

Type in -23

\section*{29) Problem \#PRABW3K "PRABW3K - Solving 1-Step Addition Equations"}

Solve for c:
c \(+9=-17\)

\section*{Algebraic Expression:}
\(\sqrt{ }-26\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 9 . Therefore, you must subtract 9 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+9 & =-17 \\
-9 & \underline{-9} \\
c & =-26
\end{aligned}
\]

Type in -26

\section*{30) Problem \#PRABW32 "PRABW32 - Solving 1-Step Addition Equations"}

Solve for b :
b+11 = -17

\section*{Algebraic Expression:}
\(\sqrt{ }-28\)

\section*{Hints:}

- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
b \(+11=-17\)
- 11 - 11
b \(=-28\)

Type in -28

\section*{31) Problem \#PRABW7Q "PRABW7Q - Solving 1-Step Addition Equations"}

Solve for a:
\(a+(-20)=-20\)
Algebraic Expression:
\(\sqrt{ } 0\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \quad \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-20 \\
+20 & \underline{+20} \\
& \\
& =0
\end{aligned}
\]

Type in 0

\section*{32) Problem \#PRABW34 "PRABW34 - Solving 1-Step Addition Equations"}

Solve for b :
b \(+7=-20\)

\section*{Algebraic Expression:}
\(\sqrt{ }-27\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 7. Therefore, you must subtract 7 from
both sides of the equation.
- This is what it should look like:
\[
\begin{array}{rc}
b+7 & =-20 \\
-7 & \underline{-7} \\
b & =-27
\end{array}
\]

Type in -27

\section*{33) Problem \#PRABW37 "PRABW37 - Solving 1-Step Addition Equations"}

Solve for x :
\(x+16=-13\)

\section*{Algebraic Expression:}
\(\sqrt{-29}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
x+16=-13
\]

\[
x=-29
\]

Type in -29

\section*{34) Problem \#PRABW6G "PRABW6G - Solving 1-Step Addition Equations"}

Solve for b:
b \(+(-20)=-17\)

\section*{Algebraic Expression:}
\(\sqrt{ } 3\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
m & =
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
\mathrm{b}+(-20) & =-17 \\
+20 & +20 \\
& \\
& \\
& =3
\end{aligned}
\]

Type in 3

\section*{35) Problem \#PRABW6F "PRABW6F - Solving 1-Step Addition Equations"}

Solve for x :
\(x+(-20)=-16\)

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+ & (-4)= \\
& -25 \\
& +4 \quad+4
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+(-20) & =-16 \\
+20 & +20 \\
& \\
& =4
\end{aligned}
\]

Type in 4

Solve for x :
\(x+(-20)=-13\)

\section*{Algebraic Expression:}
\(\sqrt{ } 7\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+(-20) & =-13 \\
+20 & \underline{+20} \\
& x=7
\end{aligned}
\]

Type in 7
37) Problem \#PRABW7P "PRABW7P - Solving 1-Step Addition Equations"

Solve for x :
\[
x+(-20)=-11
\]

\section*{Algebraic Expression:}


\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \quad \underline{+4} \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+(-20) & =-11 \\
& +20 \quad+20
\end{aligned}
\]
\[
x=9
\]

Type in 9

\section*{38) Problem \#PRABW35 "PRABW35 - Solving 1-Step Addition Equations"}

Solve for a:
\(a+8=-19\)

\section*{Algebraic Expression:}
\(\sqrt{-27}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 8 . Therefore, you must subtract 8 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+8 & =-19 \\
-8 & \underline{-8} \\
a & =-27
\end{aligned}
\]


\section*{39) Problem \#PRABW4V "PRABW4V - Solving 1-Step Addition Equations"}

Solve for b :
b \(+18=-16\)

\section*{Algebraic Expression:}
\(\sqrt{-34}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
b \(+18=-16\)
- 18 -18
b \(=-34\)

Type in -34

\section*{40) Problem \#PRABW4U "PRABW4U - Solving 1-Step Addition Equations"}

Solve for b :
b \(+8=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ }-27\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 8 . Therefore, you must subtract 8 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
-8 \quad \underline{-8} \\
b=-27
\end{array}
\]

Type in -27

\section*{41) Problem \#PRABW36 "PRABW36 - Solving 1-Step Addition Equations"}

Solve for x :
\(\mathrm{x}+9=-12\)

\section*{Algebraic Expression:}
\(\sqrt{ }-21\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 9 . Therefore, you must subtract 9 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+9 & =-12 \\
-9 & \underline{-9} \\
x & =-21
\end{aligned}
\]

Type in -21

\section*{42) Problem \#PRABW3U "PRABW3U - Solving 1-Step Addition Equations"}

Solve for x :
\(x+17=-11\)

\section*{Algebraic Expression:}
\(\sqrt{ }-28\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4}
\end{aligned}
\]

\[
m=-29
\]
- To solve you need to do the opposite of the sign in front of 17 . Therefore, you must subtract 17 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
& x+17=-11 \\
&-17 \quad \underline{-17}
\end{aligned}
\]
\[
x=-28
\]

\section*{43) Problem \#PRABW7H "PRABW7H - Solving 1-Step Addition Equations"}

Solve for c:
c \(+(-20)=-14\)

\section*{Algebraic Expression:}
\(\sqrt{ } 6\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-14 \\
+20 & \underline{+20} \\
& \\
& =6
\end{aligned}
\]

Type in 6
44) Problem \#PRABW3R "PRABW3R - Solving 1-Step Addition Equations"

Solve for a:
\(a+4=-12\)
 \(\sqrt{ }-16\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 4 . Therefore, you must subtract 4 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{cc}
a+4=-12 \\
-4 & -4
\end{array}
\]

Type in -16
45) Problem \#PRABW77 "PRABW77 - Solving 1-Step Addition Equations"

Solve for \(y\) :
\(y+(-20)=-16\)
Algebraic Expression:
\(\sqrt{ } 4\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
+4 & +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-16 \\
+20 & +20 \\
& \\
& =4
\end{aligned}
\]

Type in 4

\section*{46) Problem \#PRABW7S "PRABW7S - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-12\)
Algebraic Expression:
8

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & \underline{+4} \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-12 \\
+20 & +20 \\
& \\
& =8
\end{aligned}
\]

Type in 8

\section*{47) Problem \#PRABW3P "PRABW3P - Solving 1-Step Addition Equations"}

Solve for x :
\(\mathrm{x}+5=-15\)
Algebraic Expression:
\(\sqrt{ }-20\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 5 . Therefore, you must subtract 5 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+5 & =-15 \\
-5 & \underline{-5} \\
x & =-20
\end{aligned}
\]

Type in -20

\section*{48) Problem \#PRABW33 "PRABW33 - Solving 1-Step Addition Equations"}

Solve for a:
a \(+8=-14\)

\section*{Algebraic Expression:}
\(\sqrt{-22}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & -4 \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 8. Therefore, you must subtract 8 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+8 & =-14 \\
-8 & \underline{-8} \\
a & =-22
\end{aligned}
\]

Type in -22

\section*{49) Problem \#PRABW44 "PRABW44 - Solving 1-Step Addition Equations"}

Solve for y :
\[
y+14=-16
\]

\section*{Algebraic Expression:}
\(\sqrt{ }-30\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m=-29
\]
- To solve you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
y+14=-16 \\
-14 \quad \underline{-14} \\
y=-30
\end{array}
\]
50) Problem \#PRABW4X "PRABW4X - Solving 1-Step Addition Equations"

Solve for x :
\(x+3=-13\)

\section*{Algebraic Expression:}

ป -16

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 3. Therefore, you must subtract 3 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+3 & =-13 \\
-3 & \underline{-3} \\
x & =-16
\end{aligned}
\]

Type in -16
51) Problem \#PRABW75 "PRABW75 - Solving 1-Step Addition Equations"

Solve for c:


\section*{Algebraic Expression:}
\(\sqrt{2}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\(c+(-20)=-18\)
\(+20 \quad+20\)
\(c=2\)

Type in 2

\section*{52) Problem \#PRABW3H "PRABW3H - Solving 1-Step Addition Equations"}

Solve for b :
b \(+18=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ }-33\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
b \(+18=-15\)
- 18 -18
b \(=-33\)

Type in -33

\section*{53) Problem \#PRABW43 "PRABW43 - Solving 1-Step Addition Equations"}

Solve for a:
\(a+17=-16\)

\section*{Algebraic Expression:}
\(\sqrt{ }-33\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4}
\end{aligned}
\]
\(m=-29\)
- To solve you need to do the opposite of the sign in front of 17 . Therefore, you must subtract 17 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
a+17=-16 \\
-17 \quad \underline{-17}
\end{array}
\]
\(\mathrm{a}=-33\)

Type in -33
54) Problem \#PRABW7G "PRABW7G - Solving 1-Step Addition Equations"

Solve for b:
b \(+(-20)=-14\)
Algebraic Expression:
\(\sqrt{ } 6\)
Hints:
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.

\[
\begin{aligned}
b+ & (-20) \quad= \\
& +20 \quad+20
\end{aligned}
\]
\[
\text { b }=6
\]

Type in 6
55) Problem \#PRABW5K "PRABW5K - Solving 1-Step Addition Equations"

Solve for a:
\(a+(-20)=-15\)
Algebraic Expression:
5

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-15 \\
+20 & +20 \\
& \\
& =5
\end{aligned}
\]

Type in 5

\section*{56) Problem \#PRABW8B "PRABW8B - Solving 1-Step Addition Equations"}

Solve for c:
c \(+(-20)=-15\)

\section*{Algebraic Expression:}

5

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m+(-4)=-25
\]
\[
+4 \quad+4
\]
\[
m=-21
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-15 \\
+20 & +20 \\
& \\
& \\
& =5
\end{aligned}
\]

Type in 5
57) Problem \#PRABW7V "PRABW7V - Solving 1-Step Addition Equations"

Solve for y :
\(y+(-20)=-11\)

\section*{Algebraic Expression:}

9

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \quad+4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-11 \\
+20 & \underline{+20} \\
y & =9
\end{aligned}
\]

Type in 9

\section*{58) Problem \#PRABW7R "PRABW7R - Solving 1-Step Addition Equations"}

c \(+(-20)=-14\)

\section*{Algebraic Expression:}
\(\sqrt{6}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-14 \\
+20 & +20 \\
& \\
& =6
\end{aligned}
\]

Type in 6

\section*{59) Problem \#PRABW4G "PRABW4G - Solving 1-Step Addition Equations"}

Solve for b:
b \(+14=-15\)
Algebraic Expression:
\(\sqrt{ }-29\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
\(b+14=-15\)
- 14 -14
b \(=-29\)

Type in -29
60) Problem \#PRABW3N "PRABW3N - Solving 1-Step Addition Equations"

Solve for a:
a \(+8=-13\)

\section*{Algebraic Expression:}
\(\sqrt{-21}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m+4=-25
\]
- 4 - 4
\[
m=-29
\]
- To solve you need to do the opposite of the sign in front of 8 . Therefore, you must subtract 8 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+8 & =-13 \\
-8 & \underline{-8} \\
a & =-21
\end{aligned}
\]

Type in -21

\section*{61) Problem \#PRABW5G "PRABW5G - Solving 1-Step Addition Equations"}

Solve for c :
c \(+(-20)=-20\)

\section*{Algebraic Expression:}
\(\sqrt{ } 0\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-20 \\
+20 & +20 \\
& \\
& \\
& =0
\end{aligned}
\]

Type in 0

\section*{62) Problem \#PRABW72 "PRABW72 - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-20\)
Algebraic Expression:
\(\sqrt{ } 0\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-20 \\
+20 & +20 \\
y= & 0
\end{aligned}
\]

Type in 0

\section*{63) Problem \#PRABW5H "PRABW5H - Solving 1-Step Addition Equations"}

Solve for c:
\(\mathrm{c}+(-20)=-12\)

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}

- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-12 \\
& +20 \quad+20
\end{aligned}
\]
\[
c=8
\]

\section*{Type in 8}

\section*{64) Problem \#PRABW7Z "PRABW7Z - Solving 1-Step Addition Equations"}

Solve for b :
\(b+(-20)=-12\)

\section*{Algebraic Expression:}
- 8

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+(-20) & =-12 \\
+20 & +20 \\
& b=8
\end{aligned}
\]

Type in 8

\section*{65) Problem \#PRABW3M "PRABW3M - Solving 1-Step Addition Equations"}

Solve for y :
\(y+13=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ }-32\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 13 . Therefore, you must subtract 13 from
both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
y+13=-19 \\
-13 \quad \underline{-13} \\
y=-32
\end{array}
\]

Type in -32

\section*{66) Problem \#PRABW7F "PRABW7F - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-17\)

\section*{Algebraic Expression:}
\(\sqrt{ } 3\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
y+(-20)=-17
\]

\[
y=3
\]

Type in 3

\section*{67) Problem \#PRABW6N "PRABW6N - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-16\)

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \quad \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-16 \\
+20 & +20 \\
& \\
y= & 4
\end{aligned}
\]

Type in 4

\section*{68) Problem \#PRABW3Y "PRABW3Y - Solving 1-Step Addition Equations"}

Solve for b:
b \(+4=-18\)

\section*{Algebraic Expression:}
\(\sqrt{ }-22\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4}
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 4 . Therefore, you must subtract 4 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+4 & =-18 \\
-4 & \underline{-4} \\
b & =-22
\end{aligned}
\]

Type in -22

Solve for a:
\(a+(-20)=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-15 \\
& +20 \\
& +20
\end{aligned}
\]
\[
a=5
\]

Type in 5

\section*{70) Problem \#PRABW6M "PRABW6M - Solving 1-Step Addition Equations"}

Solve for a:
\[
a+(-20)=-13
\]

\section*{Algebraic Expression:}


\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) \quad= & -13 \\
& +20 \quad+20
\end{aligned}
\]
\[
\mathrm{a}=7
\]

Type in 7

\section*{71) Problem \#PRABW5Z "PRABW5Z - Solving 1-Step Addition Equations"}

Solve for b :
\(b+(-20)=-20\)

\section*{Algebraic Expression:}
\(\sqrt{0}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & -25 \\
+4 & +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
\mathrm{b}+(-20) & =-20 \\
+20 & +20 \\
& \mathrm{~b}=
\end{aligned}
\]
https://wwTi\&BSistmetti \(0_{\text {org/build/print/sequence/807778?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false }}\)
72) Problem \#PRABW4D "PRABW4D - Solving 1-Step Addition Equations"

Solve for b :
b \(+11=-17\)

\section*{Algebraic Expression:}
-28

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & -4 \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+11= & -17 \\
& -11 \quad-11
\end{aligned}
\]
\[
b=-28
\]

Type in -28

\section*{73) Problem \#PRABW5N "PRABW5N - Solving 1-Step Addition Equations"}

Solve for b :
b \(+(-20)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{ } 2\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
m & =
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
+20 \quad \underline{+20} \\
b=2
\end{array}
\]

Type in 2

\section*{74) Problem \#PRABW7E "PRABW7E - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
m & =
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-19 \\
+20 & +20 \\
& y=
\end{aligned}
\]

Type in 1

\section*{75) Problem \#PRABW7U "PRABW7U - Solving 1-Step Addition Equations"}

Solve for x :
\(x+(-20)=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+ & (-4)= \\
& -25 \\
& +4 \quad+4
\end{aligned}
\]
\(m=-21\)
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+(-20) & =-15 \\
+20 & +20 \\
& \\
& =5
\end{aligned}
\]

\section*{76) Problem \#PRABW6Q "PRABW6Q - Solving 1-Step Addition Equations"}

Solve for a:
\(a+(-20)=-16\)

\section*{Algebraic Expression:}
\(\sqrt{ } 4\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-16 \\
& +20 \\
& +20
\end{aligned}
\]
\[
a=4
\]

Type in 4

\section*{77) Problem \#PRABW4W "PRABW4W - Solving 1-Step Addition Equations"}

Solve for a:
\[
a+11=-11
\]
 \(\sqrt{ }-22\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+11= & -11 \\
& -11 \quad-11
\end{aligned}
\]
\(\mathrm{a}=-22\)

Type in -22

\section*{78) Problem \#PRABW3Q "PRABW3Q - Solving 1-Step Addition Equations"}

Solve for x :
\(x+8=-18\)
Algebraic Expression:
\(\sqrt{-26}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 8 . Therefore, you must subtract 8 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{rc}
x+8 & =-18 \\
-8 & -8 \\
x & =-26
\end{array}
\]

Type in -26

\section*{79) Problem \#PRABW42 "PRABW42 - Solving 1-Step Addition Equations"}

Solve for c:
c \(+4=-13\)
Algebraic Expression:
\(\sqrt{-17}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 4 . Therefore, you must subtract 4 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+4 & =-13 \\
-4 & -4 \\
c & =-17
\end{aligned}
\]

Type in -17

\section*{80) Problem \#PRABW5Q "PRABW5Q - Solving 1-Step Addition Equations"}

Solve for b :
\(b+(-20)=-16\)
Algebraic Expression:
4

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
\mathrm{b}+(-20) & =-16 \\
+20 & +20 \\
& \\
& \\
& \\
& 4
\end{aligned}
\]

Type in 4

\section*{81) Problem \#PRABW3V "PRABW3V - Solving 1-Step Addition Equations"}

Solve for b :
b \(+5=-13\)

\section*{Algebraic Expression:}
\(\sqrt{-18}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & -4 \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 5 . Therefore, you must subtract 5 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+5 & =-13 \\
-5 & \underline{-5} \\
b & =-18
\end{aligned}
\]

Type in -18

\section*{82) Problem \#PRABW4E "PRABW4E - Solving 1-Step Addition Equations"}

Solve for x :
\(x+10=-12\)

\section*{Algebraic Expression:}
\(\sqrt{ }-22\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m=-29
\]
- To solve you need to do the opposite of the sign in front of 10. Therefore, you must subtract 10 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
x+10=-12 \\
-10 \quad \underline{-10} \\
x=-22
\end{array}
\]

\section*{83) Problem \#PRABW7J "PRABW7J - Solving 1-Step Addition Equations"}

Solve for a:
\[
a+(-20)=-15
\]

\section*{Algebraic Expression:}
\(\sqrt{ } 5\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-15 \\
+20 & \underline{+20} \\
& \\
& =5
\end{aligned}
\]

Type in 5
84) Problem \#PRABW74 "PRABW74 - Solving 1-Step Addition Equations"

Solve for a:


\section*{Algebraic Expression:}
\(\sqrt{0}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\(a+(-20)=-20\)
\[
a=0
\]

Type in 0

\section*{85) Problem \#PRABW45 "PRABW45 - Solving 1-Step Addition Equations"}

Solve for x :
\(x+16=-18\)
Algebraic Expression:
\(\sqrt{ }\)-34

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & -4 \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
x+16=-18 \\
-16 \quad-16 \\
x=-34
\end{array}
\]

Type in -34

\section*{86) Problem \#PRABW5X "PRABW5X - Solving 1-Step Addition Equations"}

Solve for a:
\(a+(-20)=-17\)
```

Algebraic Expression:
$\sqrt{3}$

```

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+ & (-4)= \\
& -25 \\
& +4 \quad+4
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-17 \\
& +20
\end{aligned}
\]
\[
a=3
\]

Type in 3
87) Problem \#PRABW6R "PRABW6R - Solving 1-Step Addition Equations"

Solve for b:
b \(+(-20)=-11\)
Algebraic Expression:
\(\sqrt{ } 9\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \quad \underline{+4} \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.

\[
\begin{aligned}
\mathrm{b}+ & (-20) \quad= \\
& +20 \quad+20
\end{aligned}
\]
\[
\mathrm{b}=9
\]

Type in 9
88) Problem \#PRABW6P "PRABW6P - Solving 1-Step Addition Equations"

Solve for a:
\(a+(-20)=-16\)

\section*{Algebraic Expression:}

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a+(-20) & =-16 \\
+20 & \underline{+20} \\
& \\
& =4
\end{aligned}
\]

Type in 4

\section*{89) Problem \#PRABW6J "PRABW6J - Solving 1-Step Addition Equations"}

Solve for x :
\(x+(-20)=-20\)

\section*{Algebraic Expression:}
\(\sqrt{0}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m+(-4)=-25
\]
\[
+4 \quad+4
\]
\[
m=-21
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
x+(-20) & =-20 \\
+20 & +20 \\
& x=
\end{aligned}
\]

Type in 0
90) Problem \#PRABW4Z "PRABW4Z - Solving 1-Step Addition Equations"

Solve for a:
\(a+12=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ }-31\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 12 . Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
a+12=-19 \\
-12 \quad \underline{-12} \\
a=-31
\end{array}
\]

Type in -31

\section*{91) Problem \#PRABW6K "PRABW6K - Solving 1-Step Addition Equations"}

b \(+(-20)=-12\)

\section*{Algebraic Expression:}
\(\sqrt{ } 8\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+(-20) & =-12 \\
+20 & +20 \\
& b=8
\end{aligned}
\]

Type in 8

\section*{92) Problem \#PRABW7Y "PRABW7Y - Solving 1-Step Addition Equations"}

Solve for b:
\(b+(-20)=-13\)
Algebraic Expression:
\(\sqrt{ } 7\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \\
& +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+ & (-20) \\
& +20 \\
& -13 \\
& +20
\end{aligned}
\]
\[
\mathrm{b}=7
\]

Type in 7
93) Problem \#PRABW79 "PRABW79 - Solving 1-Step Addition Equations"

Solve for b:
b + (-20) = -11

\section*{Algebraic Expression:}

9

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
m+(-4)=-25
\]
\(+4 \quad+4\)
\(m=-21\)
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
b+(-20) & =-11 \\
+20 & +20 \\
& \\
& =9
\end{aligned}
\]

Type in 9

\section*{94) Problem \#PRABW4Y "PRABW4Y - Solving 1-Step Addition Equations"}

Solve for a:
\(a+18=-19\)
Algebraic Expression:
-37

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from
both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
a+18=-19 \\
-18 \quad \underline{-18}
\end{array}
\]
\[
\mathrm{a}=-37
\]

Type in -37

\section*{95) Problem \#PRABW7T "PRABW7T - Solving 1-Step Addition Equations"}

Solve for y :
\(y+(-20)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
& +4 \quad \underline{+4} \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+(-20) & =-19 \\
+20 & +20 \\
y= & 1
\end{aligned}
\]

Type in 1

\section*{96) Problem \#PRABW73 "PRABW73 - Solving 1-Step Addition Equations"}

Solve for c:
c \(+(-20)=-13\)

\section*{Algebraic Expression:}
\(\sqrt{ } 7\)

\section*{Hints:}

- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(-4) & =-25 \\
& +4 \\
& +4 \\
m & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-13 \\
& +20 \quad+20
\end{aligned}
\]
\[
\mathrm{c}=7
\]

\section*{Type in 7}

\section*{97) Problem \#PRABW38 "PRABW38 - Solving 1-Step Addition Equations"}

Solve for x :
\(x+16=-14\)
Algebraic Expression:
\(\sqrt{-30}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
x+16=-14 \\
-16 \quad-16 \\
x=
\end{array}
\]

Type in -30

\section*{98) Problem \#PRABW5W "PRABW5W - Solving 1-Step Addition Equations"}

Solve for c:
c \(+(-20)=-11\)

\section*{Algebraic Expression: \\ \(\sqrt{ } 9\)}

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & +4 \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both
sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
c+(-20) & =-11 \\
+20 & +20 \\
& \\
& \\
& =9
\end{aligned}
\]

Type in 9

\section*{99) Problem \#PRABW5U "PRABW5U - Solving 1-Step Addition Equations"}

Solve for a:
\(a+(-20)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{1}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}+(-4) & =-25 \\
+4 & \underline{+4} \\
\mathrm{~m} & =-21
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 20. Therefore, you must add 20 from both sides of the equation.
- This is what it should look like:
\[
a+(-20)=-19
\]

\[
a=1
\]

Type in 1

\section*{100) Problem \#PRABW3J "PRABW3J - Solving 1-Step Addition Equations"}

Solve for y :
\(y+6=-20\)

\section*{Algebraic Expression:}
\(\sqrt{ }-26\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+4 & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- To solve you need to do the opposite of the sign in front of 6 . Therefore, you must subtract 6 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
y+6 & =-20 \\
-6 & -6 \\
y & =-26
\end{aligned}
\]

Type in -26

\section*{101) Problem \#PRAVCZ5 "PRAVCZ5 - Solving 1-Step Subtraction Equations"}

Solve for x :
\(x-(-20)=-14\)

\section*{Algebraic Expression:}
\(\sqrt{ }-34\)

\section*{Hints:}


This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & -4
\end{aligned}
\]
\[
m=-29
\]

\section*{PSAHRF 1.1}


The first step to solve is to change the subtraction sign and negative sign in front of 20 to plus signs.
PSAHRF 1.2

swer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=fals

Next, you need to do the opposite of the sign in front of 20. Therefore, you must subtract 20 from both sides of the equation.

\section*{PSAHRF 1.3}


This is what it should look like:
\[
\begin{aligned}
x-(-20) & =-14 \\
x+(+20) & \\
-20 & -20 \\
x & =-34
\end{aligned}
\]

Type in -34

\section*{102) Problem \#PRAVCZX "PRAVCZX - Solving 1-Step Subtraction Equations"}

Solve for a:
a \(-(-19)=-16\)
Algebraic Expression:

Hints:

\section*{PSAHRF 0.1}

This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]


The first step to solve is to change the subtraction sign and negative sign in front of 19 to plus signs.

\section*{PSAHRF 2.2}

Next, you need to do the opposite of the sign in front of 19. Therefore, you must subtract 19 from both sides of the equation.

\section*{PSAHRF 2.3}


This is what it should look like:
\[
\begin{aligned}
& a-(-19)=-16 \\
& a+(+19) \\
&-19
\end{aligned}
\]
\[
a=-35
\]

Type in -35
103) Problem \#PRAVCZ2 "PRAVCZ2 - Solving 1-Step Subtraction Equations"

Solve for \(y\) :
\(y-(-11)=-13\)

\section*{Algebraic Expression:}
\(\sqrt{-24}\)

\section*{Hints:}

\section*{PSAHRF 0.1}

This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]


The first step to solve is to change the subtraction sign and negative sign in front of 11 to plus signs.

\section*{PSAHRF 3.2}


Next, you need to do the opposite of the sign in front of 11. Therefore, you must subtract 11 from both sides of the equation.

\section*{PSAHRF 3.3}


This is what it should look like:
\[
\begin{array}{r}
y-(-11)=-13 \\
y+(+11) \\
-11 \\
y=-24
\end{array}
\]

Type in -24
104) Problem \#PRAVCZ6 "PRAVCZ6 - Solving 1-Step Subtraction Equations"

Solve for c :
c \(-(-18)=-12\)

\section*{Algebraic Expression:}
-30

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 18 to plus signs.
- Next, you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
\[
\text { с }-(-18)=-12
\]
c \(+(+18)\)
\(-18 \quad \underline{-18}\)
\[
c=-30
\]

Type in -30

\section*{105) Problem \#PRAVCZ7 "PRAVCZ7 - Solving 1-Step Subtraction Equations"}

Solve for y :
\[
y-(-18)=-12
\]

\section*{Algebraic Expression:}
 -30

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 18 to plus signs.
- Next, you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{cc}
y-(-18) & =-12 \\
y+(+18) & \\
-18 & -18
\end{array}
\]
\[
y=-30
\]

Type in - 30
106) Problem \#PRAVCZ4 "PRAVCZ4 - Solving 1-Step Subtraction Equations"

Solve for y :
\(y-(-19)=-18\)
Algebraic Expression:
\(\sqrt{-37}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 19 to plus signs.
- Next, you need to do the opposite of the sign in front of 19. Therefore, you must subtract 19 from both sides of the equation.
- This is what it should look like:
```

    y - (-19) = -18
    y + (+ 19)
            -19 --19
            y = -37
    ```

Type in -37

\section*{107) Problem \#PRAVCZZ "PRAVCZZ - Solving 1-Step Subtraction Equations"}

Solve for y :
\(y-(-18)=-19\)

\section*{Algebraic Expression:}
-37

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 18 to plus signs.
- Next, you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
y-(-18)=-19 \\
y+(+18) \\
-18 \quad-18 \\
y=-37
\end{array}
\]

Type in -37

\section*{108) Problem \#PRAVCZY "PRAVCZY - Solving 1-Step Subtraction Equations"}

Solve for y :
\(y-(-12)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-30}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.

\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 12 to plus signs.
- Next, you need to do the opposite of the sign in front of 12 . Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
\[
\begin{gathered}
y-(-12)=-18 \\
y+(+12) \\
-12 \quad-12
\end{gathered}
\]
\[
y=-30
\]

Type in -30

\section*{109) Problem \#PRAVCZ3 "PRAVCZ3 - Solving 1-Step Subtraction Equations"}

Solve for y :
\(y-(-11)=-14\)
Algebraic Expression:
\(\sqrt{ }-25\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 11 to plus signs.
- Next, you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{cc}
y-(-11) & =-14 \\
y+(+11) & \\
-11 & -11
\end{array}
\]
\[
y=-25
\]

Type in -25

\section*{110) Problem \#PRAVC24 "PRAVC24 - Solving 1-Step Subtraction Equations"}

Solve for y :
\(y-(-16)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-34}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m+(+4) & =-25 \\
-4 & -4 \\
m= & -29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 16 to plus signs.
- Next, you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
y-(-16)=-18 \\
y+(+16) \\
-16 \quad-16 \\
y=-34
\end{array}
\]

Type in -34

\section*{111) Problem \#PRAVC2B "PRAVC2B - Solving 1-Step Subtraction Equations"}

\section*{Solve for x :}
\(x-(-16)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{\text {-35 }}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
```

        m-(-4) = -25
        m + (+4) = -25
    ```

```

            -4 -4
            m = -29
    ```
- The first step to solve is to change the subtraction sign and negative sign in front of 16 to plus signs.
- Next, you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
\begin{gathered}
x-(-16)=-19 \\
x+(+16) \\
-16
\end{gathered}
\]
\[
x=-35
\]

Type in -35

\section*{112) Problem \#PRAVC2X "PRAVC2X - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-20)=-14\)
Algebraic Expression:
\(\sqrt{-34}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 20 to plus signs.
- Next, you need to do the opposite of the sign in front of 20. Therefore, you must subtract 20 from both sides of the equation.
- This is what it should look like:
c \(-(-20)=-14\)
c \(+(+20)\)
- \(20 \quad \underline{-20}\)
\(c=-34\)

Type in -34

\section*{113) Problem \#PRAVC2M "PRAVC2M - Solving 1-Step Subtraction Equations"}

Solve for y :
\[
y-(-19)=-13
\]

\section*{Algebraic Expression:}
\(\sqrt{ }-32\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
& m-(-4)=-25 \\
& m+(+4)=-25
\end{aligned}
\]
\[
-4 \quad-4
\]
\[
m=-29
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 19 to plus signs.
- Next, you need to do the opposite of the sign in front of 19. Therefore, you must subtract 19 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
y-(-19)=-13 \\
y+(+19) \\
-19 \quad-19 \\
y=-32
\end{array}
\]

Type in -32

\section*{114) Problem \#PRAVC2V "PRAVC2V - Solving 1-Step Subtraction Equations"}

Solve for x :
\(x-(-18)=-11\)

\section*{Algebraic Expression:}
\(\sqrt{ }-29\)
Hints:
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}-(-4) & =-25 \\
\mathrm{~m}+(+4) & =-25 \\
-4 & -\underline{4}
\end{aligned}
\]
\[
m=-29
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 18 to plus signs.
- Next, you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
\[
\begin{gathered}
x-(-18)=-11 \\
x+(+18) \\
-18 \quad-18
\end{gathered}
\]
\[
x=-29
\]
115) Problem \#PRAVC22 "PRAVC22 - Solving 1-Step Subtraction Equations"

Solve for x :
\(x-(-13)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-31}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 13 to plus signs.
- Next, you need to do the opposite of the sign in front of 13 . Therefore, you must subtract 13 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
& x-(-13)=-18 \\
& x+(+13) \\
&-13-13 \\
& x=-31
\end{aligned}
\]

Type in -31

\section*{116) Problem \#PRAVC2W "PRAVC2W - Solving 1-Step Subtraction Equations"}

Solve for a:
a \(-(-12)=-17\)

\section*{Algebraic Expression:}
\[
-29
\]

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 12 to plus signs.
- Next, you need to do the opposite of the sign in front of 12 . Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
\begin{tabular}{cc}
\(a-(-12)\) & \(=-17\) \\
\(a+(+12)\) \\
-12 & -12
\end{tabular}
\[
a=-29
\]

Type in -29

\section*{117) Problem \#PRAVC2P "PRAVC2P - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-14)=-14\)

\section*{Algebraic Expression:}
\(\sqrt{-28}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 14 to plus signs.
- Next, you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from
both sides of the equation.
- This is what it should look like:
c \(-(-14)=-14\)
c \(+(+14)\)
\(-14 \quad-14\)
\[
c=-28
\]

Type in -28

\section*{118) Problem \#PRAVC2U "PRAVC2U - Solving 1-Step Subtraction Equations"}

Solve for x :
\(x-(-13)=-20\)

\section*{Algebraic Expression:}
\(\sqrt{ }-33\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 13 to plus signs.
- Next, you need to do the opposite of the sign in front of 13 . Therefore, you must subtract 13 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
& x-(-13)=-20 \\
& x+(+13) \\
&-13-13 \\
& x=-33
\end{aligned}
\]

Type in -33

\section*{119) Problem \#PRAVC2Y "PRAVC2Y - Solving 1-Step Subtraction Equations"}

Solve for a:

\section*{Algebraic Expression:}
\(\sqrt{-32}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 14 to plus signs.
- Next, you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
a-(-14) & =-18 \\
a+(+14) & \\
-14 & -14 \\
a= & -32
\end{aligned}
\]

Type in -32

\section*{120) Problem \#PRAVC2D "PRAVC2D - Solving 1-Step Subtraction Equations"}

Solve for y :
\(y-(-20)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-38}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 20 to plus signs.
- Next, you need to do the opposite of the sign in front of 20 . Therefore, you must subtract 20 from both sides of the equation.
- This is what it should look like:

\[
\begin{array}{r}
y-(-20)=-18 \\
y+(+20) \\
-20 \quad-20 \\
y=-38
\end{array}
\]

Type in -38
121) Problem \#PRAVC2G "PRAVC2G - Solving 1-Step Subtraction Equations"

Solve for a:
\(a-(-15)=-14\)

\section*{Algebraic Expression:}
\(\sqrt{ }-29\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 15 to plus signs.
- Next, you need to do the opposite of the sign in front of 15 . Therefore, you must subtract 15 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{rr}
a-(-15) & =-14 \\
a+(+15) & \\
-15 & -15 \\
a= & -29
\end{array}
\]

Type in -29

\section*{122) Problem \#PRAVC2Q "PRAVC2Q - Solving 1-Step Subtraction Equations"}

Solve for b :
b \(-(-15)=-12\)

\section*{Algebraic Expression:}
\(-27\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 15 to plus signs.
- Next, you need to do the opposite of the sign in front of 15 . Therefore, you must subtract 15 from both sides of the equation.
- This is what it should look like:
\[
\text { b }-(-15)=-12
\]
b \(+(+15)\)
\(-15 \quad-15\)
b \(=-27\)

Type in -27
123) Problem \#PRAVC2C "PRAVC2C - Solving 1-Step Subtraction Equations"

Solve for x :
\(x-(-19)=-11\)

\section*{Algebraic Expression:}
-30

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 19 to plus signs.
- Next, you need to do the opposite of the sign in front of 19. Therefore, you must subtract 19 from both sides of the equation.
- This is what it should look like:
```

        x - (-19) = -11
        x + (+ 19)
    ```
```

            -19 -19
    $$
x=-30
$$

```

Type in -30

\section*{124) Problem \#PRAVC2T "PRAVC2T - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-16)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-34}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 16 to plus signs.
- Next, you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
c \(-(-16)=-18\)
c \(+(+16)\)
\(-16 \quad-16\)
c \(=-34\)

Type in -34

\section*{125) Problem \#PRAVC2F "PRAVC2F - Solving 1-Step Subtraction Equations"}

Solve for a:
a \(-(-14)=-18\)

\section*{Algebraic Expression:}
\(\sqrt{-32}\)
Hints:
- This is how to solve a problem similar to your problem.
\[
m+(+4)=-25
\]
\[
-4 \quad-4
\]
\[
m=-29
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 14 to plus signs.
- Next, you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
a \(-(-14)=-18\)
a + (+ 14)
\(-14 \quad-14\)

Type in -32
126) Problem \#PRAVC2E "PRAVC2E - Solving 1-Step Subtraction Equations"

Solve for a:
a \(-(-12)=-17\)

\section*{Algebraic Expression:}
\(\sqrt{ }-29\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 12 to plus signs.
- Next, you need to do the opposite of the sign in front of 12 . Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{cc}
a-(-12) & =-17 \\
a+(+12) \\
-12 & -12
\end{array}
\]
httos:/wwwasistmentsorn \(\quad\) a \(=-29\)


Type in -29

\section*{127) Problem \#PRAVC3C "PRAVC3C - Solving 1-Step Subtraction Equations"}

Solve for a:
a \(-(-19)=-12\)

\section*{Algebraic Expression:}
\(\sqrt{-31}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
& m-(-4)=-25 \\
& m+(+4)=-25
\end{aligned}
\]
```

-4 -4
m = -29

```
- The first step to solve is to change the subtraction sign and negative sign in front of 19 to plus signs.
- Next, you need to do the opposite of the sign in front of 19 . Therefore, you must subtract 19 from both sides of the equation.
- This is what it should look like:
```

a - (-19) = -12
a + (+ 19)
-19 --19

```
a \(=-31\)

Type in -31

\section*{128) Problem \#PRAVCZ8 "PRAVCZ8 - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-19)=-17\)

\section*{Algebraic Expression:}
-36
Hints:
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
& m-(-4)=-25 \\
& m+(+4)=-25
\end{aligned}
\]
\[
-4 \quad-4
\]

\[
m=-29
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 19 to plus signs.
- Next, you need to do the opposite of the sign in front of 19. Therefore, you must subtract 19 from both sides of the equation.
- This is what it should look like:
c \(-(-19)=-17\)
c + (+ 19)
\(-19 \quad \underline{-19}\)
\[
c=-36
\]

\section*{129) Problem \#PRAVC2J "PRAVC2J - Solving 1-Step Subtraction Equations"}

Solve for a:
a \(-(-14)=-17\)

\section*{Algebraic Expression:}
-31

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 14 to plus signs.
- Next, you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
\[
a-(-14)=-17
\]
\(a+(+14)\)
\(-14 \quad-14\)
\[
\mathrm{a}=-31
\]

\section*{130) Problem \#PRAVC2N "PRAVC2N - Solving 1-Step Subtraction Equations"}

Solve for b:
b \(-(-12)=-20\)

\section*{Algebraic Expression:}
\(\sqrt{ }-32\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
& m-(-4)=-25 \\
& m+(+4)=-25
\end{aligned}
\]
\[
-4 \quad-4
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 12 to plus signs.
- Next, you need to do the opposite of the sign in front of 12 . Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{r}
\mathrm{b}-(-12)=-20 \\
\mathrm{~b}+(+12) \\
-12 \quad-12 \\
b=-32
\end{array}
\]

Type in -32

\section*{131) Problem \#PRAVC2A "PRAVC2A - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-18)=-15\)

\section*{Algebraic Expression:}
\(\sqrt{-33}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]

- The first step to solve is to change the subtraction sign and negative sign in front of 18 to plus signs.
- Next, you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
c \(-(-18)=-15\)
c \(+(+18)\)
\(-18 \quad-18\)
\[
c=-33
\]

\section*{132) Problem \#PRAVC2S "PRAVC2S - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-16)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{-35}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 16 to plus signs.
- Next, you need to do the opposite of the sign in front of 16. Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:

с \(-(-16)=-19\)
\(c+(+16)\)
\(-16 \quad-16\)
\[
c=-35
\]

Type in -35

Solve for a:
\(a-(-11)=-13\)
Algebraic Expression:
\(\sqrt{-24}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 11 to plus signs.
- Next, you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{aligned}
& a-(-11)=-13 \\
& a+(+11) \\
&-11-11 \\
& a=-24
\end{aligned}
\]

Type in -24

\section*{134) Problem \#PRAVC2Z "PRAVC2Z - Solving 1-Step Subtraction Equations"}

Solve for c:
c \(-(-20)=-20\)
Algebraic Expression:
\(-40\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & =-4 \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 20 to plus signs.
- Next, you need to do the opposite of the sign in front of 20. Therefore, you must subtract 20 from
both sides of ofttone equation.
- This is what it should look like:
c \(-(-20)=-20\)
c \(+(+20)\)
- \(20 \quad \underline{-20}\)
\[
\mathrm{c}=-40
\]

Type in - 40
a \(-(-14)=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ }\)-29

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 14 to plus signs.
- Next, you need to do the opposite of the sign in front of 14 . Therefore, you must subtract 14 from both sides of the equation.
- This is what it should look like:
\[
\begin{gathered}
a-(-14)=-15 \\
a+(+14) \\
-14 \quad-14
\end{gathered}
\]
\[
\mathrm{a}=-29
\]

Type in -29

\section*{136) Problem \#PRAVC3A "PRAVC3A - Solving 1-Step Subtraction Equations"}

Solve for x :
\(x-(-18)=-19\)
 Algebraic Expression:
\(\sqrt{-37}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 18 to plus signs.
- Next, you need to do the opposite of the sign in front of 18 . Therefore, you must subtract 18 from both sides of the equation.
- This is what it should look like:
\(x-(-18)=-19\)
\(x+(+18)\)
\(-18 \quad-18\)
\[
x=-37
\]

Type in -37

\section*{137) Problem \#PRAVC2R "PRAVC2R - Solving 1-Step Subtraction Equations"}

Solve for b :
b \(-(-20)=-19\)

\section*{Algebraic Expression:}
\(\sqrt{-39}\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 20 to plus signs.
- Next, you need to do the opposite of the sign in front of 20. Therefore, you must subtract 20 from both sides of the equation.
- This is what it should look like:
b \(-(-20)=-19\)
b \(+(+20)\)
-20 - -20
\[
\mathrm{b}=-39
\]

Type in -39
138) Problem \#PRAVC2K "PRAVC2K - Solving 1-Step Subtraction Equations"

Solve for c:
c \(-(-11)=-12\)
Algebraic Expression:
-23

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 11 to plus signs.
- Next, you need to do the opposite of the sign in front of 11 . Therefore, you must subtract 11 from both sides of the equation.
- This is what it should look like:
\[
\begin{array}{rr}
c-(-11) & =-12 \\
c+(+11) & \\
-11 & -11 \\
& \\
& =-23
\end{array}
\]

Type in -23

\section*{139) Problem \#PRAVC3B "PRAVC3B - Solving 1-Step Subtraction Equations"}

Solve for b:
b \(-(-12)=-15\)

\section*{Algebraic Expression:}
\(\sqrt{ }-27\)

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
\mathrm{m}-(-4) & =-25 \\
\mathrm{~m}+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 12 to plus signs.
- Next, you need to do the opposite of the sign in front of 12. Therefore, you must subtract 12 from both sides of the equation.
- This is what it should look like:
b \(-(-12)=-15\)
b \(+(+12)\)
\(-12 \quad-12\)
\[
\text { b }=-27
\]

Type in -27

\section*{140) Problem \#PRAVCZ9 "PRAVCZ9 - Solving 1-Step Subtraction Equations"}

Solve for a:
a \(-(-16)=-20\)

\section*{Algebraic Expression:}
- 36

\section*{Hints:}
- This is how to solve a problem similar to your problem.
\[
\begin{aligned}
m-(-4) & =-25 \\
m+(+4) & =-25 \\
-4 & \underline{-4} \\
m & =-29
\end{aligned}
\]
- The first step to solve is to change the subtraction sign and negative sign in front of 16 to plus signs.
- Next, you need to do the opposite of the sign in front of 16 . Therefore, you must subtract 16 from both sides of the equation.
- This is what it should look like:
\[
\begin{gathered}
a-(-16)=-20 \\
a+(+16) \\
-16 \quad-16
\end{gathered}
\]
\[
\mathrm{a}=-36
\]

Problem Set "Multiplying Decimals 6.NS.B.3" id:[PSABMSW]
Select All
1) Problem \#PRAJN42 "PRAJN42 - Multiplying Decimals"

What is \(9.4 \times 3.05\) ?
Algebraic Expression:
28.67

Hints:

\section*{PSABMSW 1.1}

-
Multiply the numbers without the decimals.


Count the numbers to the right of the decimal point on both numbers being multiplied.
After counting, have that amount of numbers after the decimal in your answer.

\section*{PSABMSW 1.3}
-
3.05
x 9.4
28.67

Type in 28.67
2) Problem \#PRAJN4Z "PRAJN4Z - Multiplying Decimals"

What is \(7.3 \times 0.46\) ?
Exact Match (case sensitive):
3.358

Hints:


Multiply the numbers without the decimals.

\section*{PSABMSW 2.2}


Count the numbers to the right of the decimal point on both numbers being multiplied.
After counting, have that amount of numbers after the decimal in your answer.


Type in 3.358
3) Problem \#PRAJN8E "PRAJN8E - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.7 * 4.4?

\section*{Algebraic Expression:}
38.28

\section*{Hints:}
- First, multiply 87 by 44 , ignoring the decimal point.
* 4.4

348
348
3828
- Then count the total number of decimal places in the factors and add them.
8.7 <---- One decimal place
* 4.4 <---- One decimal place
\[
348
\]

348
3828
- Insert the decimal point two places from the right end.
8.7 <---- One decimal place
* 4.4 <---- One decimal place

348
348
38.28 <---- Two decimal places in the product

So 38.28 is the product.
4) Problem \#PRAJN4Y "PRAJN4Y - Multiplying Decimals"

What is \(7.2 \times 4.9\) ?
Exact Match (case sensitive):
\(\sqrt{ } 35.28\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-

\section*{4.9}

x 7.2
35.28

Type in 35.28
5) Problem \#PRAJN8D "PRAJN8D - 205620 - Multiplicantion of decimals - Tenths place" Multiply: 8.4 * 7.4 ?

\section*{Algebraic Expression:}
62.16

\section*{Hints:}
- First, multiply 84 by 74, ignoring the decimal point.
8.4
* 7.4

336
\[
\underline{588}
\]
- Then count the total number of decimal places in the factors and add them.
8.4 <---- One decimal place
* 7.4 <---- One decimal place 336
588
6216
- Insert the decimal point two places from the right end.
8.4 <---- One decimal place
* 7.4 <---- One decimal place 336
588
62.16 <---- Two decimal places in the product

So 62.16 is the product.
6) Problem \#PRAJN8F "PRAJN8F - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 2.8 * 4.7?
Algebraic Expression:
13.16

\section*{Hints:}
- First, multiply 28 by 47 , ignoring the decimal point.
2.8
* 4.7

196
112
1316
- Then count the total number of decimal places in the factors and add them.
* 4.7 <---- One decimal place

196
112
1316
- Insert the decimal point two places from the right end.
2.8 <---- One decimal place
* 4.7 <---- One decimal place

196
112
13.16 <---- Two decimal places in the product

So 13.16 is the product.

Find the product of 5.4 and 4
Algebraic Expression:
\(\sqrt{ } 21.6\)

\section*{Hints:}
- Lets multiply 5.4 by 4 , ignoring the decimal point.
\begin{tabular}{r}
5.4 \\
\(\times \quad 4\) \\
\hline 216
\end{tabular}
- Count the total number of decimal places and add them.
5.4 <---- Two decimal place
* 4 <---- Zero decimal places (4 is a whole number)
- Insert the decimal point two places from the right end.
5.4 <---- One decimal place
* \(4<----\) Zero decimal places (4 is a whole number)
21.6 <---- One decimal places in the product

So 21.6 is the product. Type 21.6 and click submit.

\section*{8) Problem \#PRAJN5F "PRAJN5F - Multiplying Decimals"}

What is \(7.6 \times 4.2\) ?

\section*{Algebraic Expression:}
\(\sqrt{31.92}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.

-
4.2
x 7.6
31.92

Type in 31.92

\section*{9) Problem \#PRAJPAX "PRAJPAX - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 3.8 and 6

\section*{Algebraic Expression:}
\(\sqrt{ } 22.8\)

\section*{Hints:}
- Lets multiply 3.8 by 6 , ignoring the decimal point.
* 6

228
- Count the total number of decimal places and add them.
3.8 <---- Two decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
- Insert the decimal point two places from the right end.
3.8 <---- One decimal place
* 6 <---- Zero decimal places (6 is a whole number)
22.8 <---- One decimal places in the product

So 22.8 is the product. Type 22.8 and click submit.

\section*{10) Problem \#PRAJPA9 "PRAJPA9-205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 3.5 and 8

\section*{Algebraic Expression:}
\(\sqrt{ } 28\)

\section*{Hints:}
- Lets multiply 3.5 by 8 , ignoring the decimal point.
3.5
* 8

280
- Count the total number of decimal places and add them.
3.5 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
3.5 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)

28 <---- One decimal places in the product

So 28 is the product. Type 28 and click submit.

\section*{11) Problem \#PRAJN44 "PRAJN44 - Multiplying Decimals"}

What is \(6.8 \times 2.72\) ?

\section*{Algebraic Expression:}
\(\sqrt{18.496}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.72
x \(\underline{6.8}\)
18.496

Type in 18.496

\section*{12) Problem \#PRAJPAP "PRAJPAP - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 5.8 and 7

\section*{Algebraic Expression:}
40.6

\section*{Hints:}
- Lets multiply 5.8 by 7 , ignoring the decimal point.
5.8
\(\begin{array}{r}* \quad 7 \\ \hline 406\end{array}\)
- Count the total number of decimal places and add them.
5.8 <---- Two decimal place
* 7 <---- Zero decimal places (7 is a whole number)
- Insert the decimal point two places from the right end.
5.8 <---- One decimal place
* \(7<----\) Zero decimal places (7 is a whole number)
40.6 <---- One decimal places in the product

So 40.6 is the product. Type 40.6 and click submit.
13) Problem \#PRAJPAZ "PRAJPAZ - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.4 and 5

\section*{Algebraic Expression:}

42

\section*{Hints:}
- Lets multiply 8.4 by 5 , ignoring the decimal point.
8.4
* 5

420
- Count the total number of decimal places and add them.
8.4 <---- Two decimal place
* 5 <---- Zero decimal places (5 is a whole number)
- Insert the decimal point two places from the right end.
8.4 <---- One decimal place
* 5 <---- Zero decimal places (5 is a whole number)

42 <---- One decimal places in the product

So 42 is the product. Type 42 and click submit.
14) Problem \#PRAJN89 "PRAJN89-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 2.2 * 2.8 ?
Algebraic Expression:
6.16

\section*{Hints:}
- First, multiply 22 by 28, ignoring the decimal point.
2.2
* 2.8

44
616
- Then count the total number of decimal places in the factors and add them.
2.2 <---- One decimal place
* 2.8 <---- One decimal place

176
44
616

2.2 <---- One decimal place
* 2.8 <---- One decimal place

176
44
6.16 <---- Two decimal places in the product

So 6.16 is the product.
15) Problem \#PRAJN9P "PRAJN9P - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.7 * 7.4?
Algebraic Expression:
\(\sqrt{64.38}\)

\section*{Hints:}
- First, multiply 87 by 74 , ignoring the decimal point.
8.7
* 7.4
\[
348
\]

609
6438
- Then count the total number of decimal places in the factors and add them.
8.7 <---- One decimal place
* 7.4 <---- One decimal place

348
609
6438
- Insert the decimal point two places from the right end.
8.7 <---- One decimal place
* 7.4 <---- One decimal place

609
64.38 <---- Two decimal places in the product

So 64.38 is the product.

\section*{16) Problem \#PRAJN85 "PRAJN85-205620 - Multiplication of decimals - Tenths place"}

Multiply: 6.7 X 3.7
Algebraic Expression:
\(\sqrt{ } 24.79\)

\section*{Hints:}
- First, multiply 67 by 37, ignoring the decimal point.
\[
67
\]

37
\(\times \quad 469\)

2479
- Then count the total number of decimal places in the factors and add them.
6.7 <---- One decimal place
3.7 <---- One decimal place
- Insert the decimal point two places from the right of the product.
6.7 <---- One decimal place
3.7 <---- One decimal place
24.79 <---- Two decimal places in the product
\begin{tabular}{r}
6.7 \\
\(\times \quad 3.7\) \\
\hline 469 \\
+2010 \\
\hline 24.79
\end{tabular}

The answer is 24.79 .
17) Problem \#PRAJN8G "PRAJN8G - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 3.2 * 6.4?

\section*{Algebraic Expression:}

\subsection*{20.48}

\section*{Hints:}
- First, multiply 32 by 64, ignoring the decimal point.
3.2
* 6.4 128
192
2048
- Then count the total number of decimal places in the factors and add them.
3.2 <---- One decimal place
* 6.4 <---- One decimal place 128
192
2048
- Insert the decimal point two places from the right end.

* 6.4 <---- One decimal place

128
192
20.48 <---- Two decimal places in the product

So 20.48 is the product.
18) Problem \#PRAJN9B "PRAJN9B - 205620 - Multiplicantion of decimals - Tenths place" Multiply: 3.2 * 4.8?

\section*{Algebraic Expression:}
15.36

\section*{Hints:}
- First, multiply 32 by 48 , ignoring the decimal point.
3.2
* 4.8

256
128
1536
- Then count the total number of decimal places in the factors and add them.
3.2 <---- One decimal place
* 4.8 <---- One decimal place

256
128
1536
- Insert the decimal point two places from the right end.
3.2 <---- One decimal place
* 4.8 <---- One decimal place

256
128
15.36 <---- Two decimal places in the product

So 15.36 is the product.
19) Problem \#PRAJPAT "PRAJPAT - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.4 and 6

\section*{Algebraic Expression:}
\(\sqrt{ } 50.4\)

\section*{Hints:}
- Lets multiply 8.4 by 6 , ignoring the decimal point.
8.4
\(\begin{array}{r}* \quad 6 \\ \hline 504\end{array}\)
- Count the total number of decimal places and add them.
8.4 <---- Two decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
- Insert the decimal point two places from the right end.
8.4 <---- One decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
50.4 <---- One decimal places in the product

So 50.4 is the product. Type 50.4 and click submit.
20) Problem \#PRAJN96 "PRAJN96-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.5 and 6

\section*{Algebraic Expression:}
, 51
Hints:
- Lets multiply 8.5 by 6 , ignoring the decimal point.
8.5
\(\begin{array}{r}* \quad 6 \\ \hline 510\end{array}\)
- Count the total number of decimal places and add them.
8.5 <---- Two decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
- Insert the decimal point two places from the right end.
8.5 <---- One decimal place
* \(6<---\) - Zero decimal places (6 is a whole number)
\(51<---\) One decimal places in the product

So 51 is the product. Type 51 and click submit.
21) Problem \#PRAJPBA "PRAJPBA - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 3.6 and 3

\section*{Algebraic Expression:}
10.8

\section*{Hints:}
- Lets multiply 3.6 by 3 , ignoring the decimal point.
3.6
* 3

108

- Count the total number of decimal places and add them.
3.6 <---- Two decimal place
* 3 <---- Zero decimal places ( 3 is a whole number)
- Insert the decimal point two places from the right end.
3.6 <---- One decimal place
* \(3<---\) Zero decimal places ( 3 is a whole number)
10.8 <---- One decimal places in the product

So 10.8 is the product. Type 10.8 and click submit.

Find the product of 5.7 and 5
Algebraic Expression:
\(\sqrt{ } 28.5\)

\section*{Hints:}
- Lets multiply 5.7 by 5 , ignoring the decimal point.
5.7
* 5

285
- Count the total number of decimal places and add them.
5.7 <---- Two decimal place
* 5 <---- Zero decimal places (5 is a whole number)
- Insert the decimal point two places from the right end.
5.7 <---- One decimal place
* 5 <---- Zero decimal places (5 is a whole number)
28.5 <---- One decimal places in the product

So 28.5 is the product. Type 28.5 and click submit.

\section*{23) Problem \#PRAJN5H "PRAJN5H - Multiplying Decimals"}

What is \(5.2 \times 1.89\) ?
Algebraic Expression:
\(\sqrt{9.828}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.

-
1.89
x \(\underline{5.2}\)
9.828

Type in 9.828
24) Problem \#PRAJPBB "PRAJPBB - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 2.4 and 8

\section*{Algebraic Expression:}
19.2

\section*{Hints:}
- Lets multiply 2.4 by 8 , ignoring the decimal point.
- Count the total number of decimal places and add them.
2.4 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
2.4 <---- One decimal place
* 8 <---- Zero decimal places (8 is a whole number)
19.2 <---- One decimal places in the product

So 19.2 is the product. Type 19.2 and click submit.

\section*{25) Problem \#PRAJN52 "PRAJN52 - Multiplying Decimals"}

What is \(8.4 \times 2.33\) ?
Algebraic Expression:
19.572

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.33
x 8.4
19.572

Type in 19.572
26) Problem \#PRAJN9M "PRAJN9M - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.3 * 5.8 ?

\section*{Algebraic Expression:}
\(\sqrt{ } 48.14\)

\section*{Hints:}
- First, multiply 83 by 58 , ignoring the decimal point.
8.3
* 5.8

664
415
4814
- Then count the total number of decimal places in the factors and add them.
8.3 <---- One decimal place
* 5.8 <---- One decimal place 664
415
4814
- Insert the decimal point two places from the right end.
8.3 <---- One decimal place
* 5.8 <---- One decimal place

664
415
48.14 <---- Two decimal places in the product

So 48.14 is the product.

\section*{27) Problem \#PRAJN6N "PRAJN6N - Multiplying Decimals"}

What is \(5.2 \times 3.62\) ?
Algebraic Expression:
\(\sqrt{18.824}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.62
x 5.2
18.824

Type in 18.824
28) Problem \#PRAJPAD "PRAJPAD - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.3 and 7

51.1

\section*{Hints:}
- Lets multiply 7.3 by 7 , ignoring the decimal point.
7.3
* 7

511
- Count the total number of decimal places and add them.
7.3 <---- Two decimal place
* \(7<----\) Zero decimal places (7 is a whole number)
- Insert the decimal point two places from the right end.
7.3 <---- One decimal place
* 7 <---- Zero decimal places (7 is a whole number)
51.1 <---- One decimal places in the product

So 51.1 is the product. Type 51.1 and click submit.

\section*{29) Problem \#PRAJN55 "PRAJN55 - Multiplying Decimals"}

What is \(7 \times 4.23\) ?

\section*{Algebraic Expression:}
\(\sqrt{29.61}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
4.23
x \(\quad \underline{7}\)
29.61

Type in 29.61
30) Problem \#PRAJN9S "PRAJN9S - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 6.5 * 8.4 ?

\section*{Algebraic Expression:}
```

54.6

```

\section*{Hints:}
- First, multiply 65 by 84, ignoring the decimal point.
6.5
* 8.4

520
5460
- Then count the total number of decimal places in the factors and add them.
6.5 <---- One decimal place
* 8.4 <---- One decimal place

260
520
5460
- Insert the decimal point two places from the right end.
6.5 <---- One decimal place
* 8.4 <---- One decimal place 260
520
54.6

So 54.6 is the product.

\section*{31) Problem \#PRAJN57 "PRAJN57 - Multiplying Decimals"}

What is \(8.6 \times 3.66\) ?

\section*{Algebraic Expression:}
31.476

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.66
x 8.6
31.476

Type in 31.476

\section*{32) Problem \#PRAJN6A "PRAJN6A - Multiplying Decimals"}

What is \(8.8 \times 1.25\) ?
Algebraic Expression:
\(\sqrt{11}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.25
x \(\quad \underline{8.8}\)
https://wwulalksistments.org/build/print/sequence/803956?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
Type in 11
33) Problem \#PRAJN8T "PRAJN8T - 205620 - Multiplicantion of decimals - Tenths place" Multiply: 7.3 * 8.6?

\section*{Algebraic Expression:}
62.78

\section*{Hints:}
- First, multiply 73 by 86 , ignoring the decimal point.
7.3
* 8.6

584
6278
- Then count the total number of decimal places in the factors and add them.
7.3 <---- One decimal place
* 8.6 <---- One decimal place

438
584
6278
- Insert the decimal point two places from the right end.
7.3 <---- One decimal place
* 8.6 <---- One decimal place

438
584
62.78 <---- Two decimal places in the product

So 62.78 is the product.
34) Problem \#PRAJPA5 "PRAJPA5-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 5.3 and 3

\section*{Algebraic Expression:}
\(\sqrt{ } 15.9\)

\section*{Hints:}
- Lets multiply 5.3 by 3 , ignoring the decimal point.
5.3
* 3

159
- Count the total number of decimal places and add them.
5.3 <---- Two decimal place
* 3 <---- Zero decimal places (3 is a whole number)
- Insert the decimal point two places from the right end.
5.3 <---- One decimal place
* 3 <---- Zero decimal places (3 is a whole number)
15.9 <---- One decimal places in the product

So 15.9 is the product. Type 15.9 and click submit.
35) Problem \#PRAJN8V "PRAJN8V - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 5.5 * 7.6?
Algebraic Expression:
\(\sqrt{41.8}\)

\section*{Hints:}
- First, multiply 55 by 76, ignoring the decimal point.
5.5
* 7.6

330
385
4180
- Then count the total number of decimal places in the factors and add them.
5.5 <---- One decimal place
* 7.6 <---- One decimal place

330
385
4180
- Insert the decimal point two places from the right end.
5.5 <---- One decimal place
* 7.6 <---- One decimal place 330
385
41.8 <---- Two decimal places in the product

So 41.8 is the product.
36) Problem \#PRAJN8P "PRAJN8P - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 3.6 * 4.8?
Algebraic Expression:
\(\sqrt{ } 17.28\)

\section*{Hints:}
- First, multiply 36 by 48 , ignoring the decimal point.
3.6
* 4.8

\(\frac{144}{1728}\)
- Then count the total number of decimal places in the factors and add them.
3.6 <---- One decimal place
* 4.8 <---- One decimal place

288
144
1728
- Insert the decimal point two places from the right end.
3.6 <---- One decimal place
* 4.8 <---- One decimal place

288
144
17.28

So 17.28 is the product.

\section*{37) Problem \#PRAJN6H "PRAJN6H - Multiplying Decimals"}

What is \(7.1 \times 4.47\) ?

\section*{Algebraic Expression:}
31.737

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
4.47
x 7.1
31.737

Type in 31.737

\section*{38) Problem \#PRAJN5W "PRAJN5W - Multiplying Decimals"}

What is \(9.5 \times 3.72\) ?
Algebraic Expression:
\(\sqrt{ } 35.34\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.72
x \(\underline{9.5}\)

Type in 35.34

\section*{39) Problem \#PRAJN6J "PRAJN6J - Multiplying Decimals"}

What is \(8.3 \times 3.09\) ?

\section*{Algebraic Expression:}
25.647

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.09
x 8.3

Type in 25.647

\section*{40) Problem \#PRAJN6G "PRAJN6G - Multiplying Decimals"}

What is \(8.6 \times 0.49\) ?

\section*{Algebraic Expression:}
4.214

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
0.49
x 8.6
4.214

Type in 4.214

\section*{41) Problem \#PRAJN6R "PRAJN6R - Multiplying Decimals"}

What is \(8.7 \times 0.95\) ?
Algebraic Expression:
\(\sqrt{ } 8.265\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
0.95
x 8.7

Type in 8.265
42) Problem \#PRAJN8S "PRAJN8S - 205620 - Multiplicantion of decimals - Tenths place" Multiply: 6.6 * 3.7?

\section*{Algebraic Expression:}
24.42

\section*{Hints:}
- First, multiply 66 by 37, ignoring the decimal point.
6.6
* 3.7
- Then count the total number of decimal places in the factors and add them.
6.6 <---- One decimal place
* 3.7 <---- One decimal place

462
198
2442
- Insert the decimal point two places from the right end.
6.6 <---- One decimal place
* 3.7 <---- One decimal place

462
198
24.42 <---- Two decimal places in the product

So 24.42 is the product.
43) Problem \#PRAJN9X "PRAJN9X - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 2.7 * 2.8 ?
Algebraic Expression:
\(\sqrt{ } 7.56\)

\section*{Hints:}
- First, multiply 27 by 28, ignoring the decimal point.
2.7
* 2.8

216
54
756
- Then count the total number of decimal places in the factors and add them.
2.7 <---- One decimal place

216
54
756
- Insert the decimal point two places from the right end.
2.7 <---- One decimal place
* 2.8 <---- One decimal place

216
\(\frac{54}{7.56}\)
<---- Two decimal places in the product

So 7.56 is the product.
44) Problem \#PRAJPA2 "PRAJPA2-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.7 and 8

\section*{Algebraic Expression:}
\(\sqrt{61.6}\)

\section*{Hints:}
- Lets multiply 7.7 by 8 , ignoring the decimal point.
7.7
* 8

616
- Count the total number of decimal places and add them.
7.7 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
7.7 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
61.6 <---- One decimal places in the product

So 61.6 is the product. Type 61.6 and click submit.
45) Problem \#PRAJN8R "PRAJN8R - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 7.2 * 5.6 ?

\section*{Algebraic Expression:}
40.32

\section*{Hints:}
- First, multiply 72 by 56 , ignoring the decimal point.
7.2
* 5.6

432
360
4032
- Then count the total number of decimal places in the factors and add them.
7.2 <---- One decimal place
* 5.6 <---- One decimal place 432
360
4032
- Insert the decimal point two places from the right end.
7.2 <---- One decimal place
* 5.6 <---- One decimal place

So 40.32 is the product.
46) Problem \#PRAJN82 "PRAJN82-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 6.6 * 8.5 ?
Algebraic Expression:
56.1

\section*{Hints:}
- First, multiply 66 by 85, ignoring the decimal point.
6.6
* 8.5

330
528
5610
- Then count the total number of decimal places in the factors and add them.
6.6 <---- One decimal place
* 8.5 <---- One decimal place 330
528
5610
- Insert the decimal point two places from the right end.
6.6 <---- One decimal place
* 8.5 <---- One decimal place

330
528
56.1 <---- Two decimal places in the product

\section*{47) Problem \#PRAJN5V "PRAJN5V - Multiplying Decimals"}

What is \(9.3 \times 4.21\) ?
Algebraic Expression:
\(\sqrt{ } 39.153\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
4.21
x \(\underline{9.3}\)
39.153

Type in 39.153
48) Problem \#PRAJN8N "PRAJN8N - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 6.5 * 6.6?

\section*{Algebraic Expression:}
42.9

\section*{Hints:}
- First, multiply 65 by 66 , ignoring the decimal point.
6.5
* 6.6

390
390
4290
- Then count the total number of decimal places in the factors and add them.
\(6.5<---\) One decimal place
* 6.6 <---- One decimal place 390
390
4290
- Insert the decimal point two places from the right end.
6.5 <---- One decimal place
* 6.6 <---- One decimal place 390
390
42.9 <---- Two decimal places in the product

So 42.9 is the product.
49) Problem \#PRAJN9Z "PRAJN9Z - 205620 - Multiplicantion of decimals - Tenths place"

Algebraic Expression:
52.8

\section*{Hints:}
- Lets multiply 6.6 by 8 , ignoring the decimal point.
\[
\begin{array}{r}
6.6 \\
* \quad 8 \\
\hline 528
\end{array}
\]
- Count the total number of decimal places and add them.
\(6.6<---\) Two decimal place
* 8 <---- Zero decimal places (8 is a whole number)
- Insert the decimal point two places from the right end.
6.6 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
52.8 <---- One decimal places in the product

So 52.8 is the product. Type 52.8 and click submit.

\section*{50) Problem \#PRAJN9G "PRAJN9G - 205620 - Multiplicantion of decimals - Tenths place"}

Multiply: 6.2 * 5.4 ?

\section*{Algebraic Expression:}
\(\sqrt{ } 33.48\)

\section*{Hints:}
- First, multiply 62 by 54 , ignoring the decimal point.
6.2
* 5.4

248
310
3348
- Then count the total number of decimal places in the factors and add them.
6.2 <---- One decimal place
* 5.4 <---- One decimal place

248
310
3348
- Insert the decimal point two places from the right end.
6.2 <---- One decimal place
* 5.4 <---- One decimal place

248
310


So 33.48 is the product.
51) Problem \#PRAJN9Y "PRAJN9Y - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.4 * 3.7?

\section*{Algebraic Expression:}
\(\sqrt{ } 31.08\)

\section*{Hints:}
- First, multiply 84 by 37 , ignoring the decimal point.
8.4
* 3.7
\(\underline{252}\) 3108
- Then count the total number of decimal places in the factors and add them.
8.4 <---- One decimal place
* 3.7 <---- One decimal place

588
252
3108
- Insert the decimal point two places from the right end.
8.4 <---- One decimal place
* 3.7 <---- One decimal place

588
252
31.08 <---- Two decimal places in the product

So 31.08 is the product.
52) Problem \#PRAJPAS "PRAJPAS - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 5.8 and 2

\section*{Algebraic Expression:}
\(\sqrt{11.6}\)

\section*{Hints:}
- Lets multiply 5.8 by 2 , ignoring the decimal point.
5.8
* 2

116
- Count the total number of decimal places and add them.
5.8 <---- Two decimal place

- Insert the decimal point two places from the right end.
5.8 <---- One decimal place
* \(2<---\) - Zero decimal places ( 2 is a whole number)
11.6 <---- One decimal places in the product

So 11.6 is the product. Type 11.6 and click submit.
53) Problem \#PRAJPA6 "PRAJPA6-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 5.5 and 4

\section*{Algebraic Expression:}

22

\section*{Hints:}
- Lets multiply 5.5 by 4 , ignoring the decimal point.
5.5
* 4
- Count the total number of decimal places and add them.
5.5 <---- Two decimal place
* 4 <---- Zero decimal places (4 is a whole number)
- Insert the decimal point two places from the right end.
5.5 <---- One decimal place
* 4 <---- Zero decimal places (4 is a whole number)

22 <---- One decimal places in the product

So 22 is the product. Type 22 and click submit.

\section*{54) Problem \#PRAJPAG "PRAJPAG - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 3.8 and 6

\section*{Algebraic Expression:}
\(\sqrt{22.8}\)

\section*{Hints:}
- Lets multiply 3.8 by 6 , ignoring the decimal point.
3.8
* 6

228
- Count the total number of decimal places and add them.
3.8 <---- Two decimal place
* 6 <---- Zero decimal places (6 is a whole number)
- Insert the decimal point two places from the right end.
3.8 <---- One decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
22.8 <---- One decimal places in the product

So 22.8 is the product. Type 22.8 and click submit.

\section*{55) Problem \#PRAJN5D "PRAJN5D - Multiplying Decimals"}

What is \(7.2 \times 3.78\) ?

\section*{Algebraic Expression:}
27.216

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.78
\(\times \quad \underline{7.2}\)
27.216

Type in 27.216

\section*{56) Problem \#PRAJPAR "PRAJPAR - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 2.2 and 5

\section*{Algebraic Expression:}
\(\sqrt{11}\)

\section*{Hints:}
- Lets multiply 2.2 by 5 , ignoring the decimal point.
\begin{tabular}{r}
2.2 \\
\(\times \quad 5\) \\
\hline 110
\end{tabular}
- Count the total number of decimal places and add them.
2.2 <---- Two decimal place
* 5 <---- Zero decimal places (5 is a whole number)
- Insert the decimal point two places from the right end.

* 5 <---- Zero decimal places (5 is a whole number)

11 <---- One decimal places in the product

So 11 is the product. Type 11 and click submit.

\section*{57) Problem \#PRAJN45 "PRAJN45 - Multiplying Decimals"}

What is \(7.1 \times 4.46\) ?

\section*{Algebraic Expression:}
31.666

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.

\subsection*{4.46}
x 7.1
31.666

Type in 31.666
58) Problem \#PRAJN9V "PRAJN9V - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 4.3 * 2.6?

\section*{Algebraic Expression:}
\(\sqrt{ } 11.18\)

\section*{Hints:}
- First, multiply 43 by 26 , ignoring the decimal point.
4.3
* 2.6

258
86
1118
- Then count the total number of decimal places in the factors and add them.
4.3 <---- One decimal place
* 2.6 <---- One decimal place 258
86
1118
- Insert the decimal point two places from the right end.
4.3 <---- One decimal place
* 2.6 <---- One decimal place 258
86
11.18
<---- Two decimal places in the product

So 11.18 is the product.
59) Problem \#PRAJN8H "PRAJN8H - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 5.3 * 7.4 ?

\section*{Algebraic Expression:}
39.22

\section*{Hints:}
- First, multiply 53 by 74, ignoring the decimal point.
5.3
* 7.4

212
371
3922
- Then count the total number of decimal places in the factors and add them.
5.3 <---- One decimal place
* 7.4 <---- One decimal place

212
371
3922
- Insert the decimal point two places from the right end.
5.3 <---- One decimal place
* 7.4 <---- One decimal place

212
371
39.22
<---- Two decimal places in the product

So 39.22 is the product.

\section*{60) Problem \#PRAJN6C "PRAJN6C - Multiplying Decimals"}

What is \(9.1 \times 1.69\) ?
Algebraic Expression:
\(\sqrt{15.379}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.69
x 9.1
15.379

Type in 15.379

\section*{Algebraic Expression:}
42.25

\section*{Hints:}
- First, multiply 65 by 65 , ignoring the decimal point.
6.5
* 6.5

325
390
4225
- Then count the total number of decimal places in the factors and add them.
6.5 <---- One decimal place
* 6.5 <---- One decimal place
- Insert the decimal point two places from the right end.
6.5 <---- One decimal place
* 6.5 <---- One decimal place

325
390
42.25 <---- Two decimal places in the product

So 42.25 is the product.
62) Problem \#PRAJPBF "PRAJPBF - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 3.7 and 3
Algebraic Expression:
\(\sqrt{11.1}\)

\section*{Hints:}
- Lets multiply 3.7 by 3, ignoring the decimal point.
3.7
* 3

111
- Count the total number of decimal places and add them.
3.7 <---- Two decimal place
* 3 <---- Zero decimal places (3 is a whole number)
- Insert the decimal point two places from the right end.
* 3 <---- Zero decimal places (3 is a whole number)
11.1 <---- One decimal places in the product

So 11.1 is the product. Type 11.1 and click submit.
63) Problem \#PRAJN83 "PRAJN83-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 5.2 * 3.4 ?
Algebraic Expression:
17.68

\section*{Hints:}
- First, multiply 52 by 34 , ignoring the decimal point.

156
1768
- Then count the total number of decimal places in the factors and add them.
5.2 ----- One decimal place
* 3.4 <---- One decimal place

208
156
1768
- Insert the decimal point two places from the right end.
5.2 <---- One decimal place
* 3.4 <---- One decimal place

208
156
17.68 <---- Two decimal places in the product

So 17.68 is the product.

\section*{64) Problem \#PRAJN5S "PRAJN5S - Multiplying Decimals"}

What is \(7.4 \times 3.45\) ?

\section*{Algebraic Expression:}
\(\sqrt{25.53}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.45
x \(\quad 7.4\)

Type in 25.53
65) Problem \#PRAJN99 "PRAJN99-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.2 and 2

\section*{Algebraic Expression:}
16.4

\section*{Hints:}
- Lets multiply 8.2 by 2 , ignoring the decimal point.
8.2
\(\begin{array}{r}* \quad 2 \\ \hline 164\end{array}\)
- Count the total number of decimal places and add them.
8.2 <---- Two decimal place
* 2 <---- Zero decimal places (2 is a whole number)
- Insert the decimal point two places from the right end.
8.2 <---- One decimal place
* 2 <---- Zero decimal places (2 is a whole number)
16.4 <---- One decimal places in the product

So 16.4 is the product. Type 16.4 and click submit.

\section*{66) Problem \#PRAJPBC "PRAJPBC - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 6.8 and 3

\section*{Algebraic Expression:}
20.4

\section*{Hints:}
- Lets multiply 6.8 by 3 , ignoring the decimal point.
\[
\begin{array}{r}
6.8 \\
* \quad 3 \\
\hline 204
\end{array}
\]
- Count the total number of decimal places and add them.
6.8 <---- Two decimal place
* 3 <---- Zero decimal places ( 3 is a whole number)
- Insert the decimal point two places from the right end.
6. 8 <-i--OMne decimal place

* 3 <---- Zero decimal places (3 is a whole number)
20.4 <---- One decimal places in the product

So 20.4 is the product. Type 20.4 and click submit.
67) Problem \#PRAJN8Q "PRAJN8Q-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 2.5 * 7.4?

\section*{Algebraic Expression:}
18.5

\section*{Hints:}
- First, multiply 25 by 74, ignoring the decimal point.

1850
- Then count the total number of decimal places in the factors and add them.
2.5 <---- One decimal place
* 7.4 <---- One decimal place

100
175
1850
- Insert the decimal point two places from the right end.
2.5 ----- One decimal place
* 7.4 <---- One decimal place 100
175
18.5 <---- Two decimal places in the product

So 18.5 is the product.

\section*{68) Problem \#PRAJPAY "PRAJPAY - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 8.6 and 8

\section*{Algebraic Expression:}
\(\sqrt{68.8}\)

\section*{Hints:}
- Lets multiply 8.6 by 8 , ignoring the decimal point.
8.6
* 8

688
- Count the total number of decimal places and add them.
8.6<-﹎--Two decimal place

* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
8.6 <---- One decimal place
* \(8<----\) Zero decimal places (8 is a whole number)
68.8 <---- One decimal places in the product

So 68.8 is the product. Type 68.8 and click submit.

\section*{69) Problem \#PRAJPAQ "PRAJPAQ - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 2.6 and 3

\section*{Algebraic Expression:}
\[
7.8
\]

\section*{Hints:}
- Lets multiply 2.6 by 3 , ignoring the decimal point.
\(\begin{array}{r}2.6 \\ \times \quad 3 \\ \hline 78\end{array}\)
- Count the total number of decimal places and add them.
2.6 <---- Two decimal place
* 3 <---- Zero decimal places (3 is a whole number)
- Insert the decimal point two places from the right end.
2.6 <---- One decimal place
* \(3<---\) Zero decimal places ( 3 is a whole number)
7.8 ----- One decimal places in the product

So 7.8 is the product. Type 7.8 and click submit.
70) Problem \#PRAJN93 "PRAJN93-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.7 and 7

\section*{Algebraic Expression:}
60.9

\section*{Hints:}
- Lets multiply 8.7 by 7 , ignoring the decimal point.
8.7
\(\begin{array}{r}* \quad 7 \\ \hline 609\end{array}\)

8.7 <---- Two decimal place
* 7 <---- Zero decimal places (7 is a whole number)
- Insert the decimal point two places from the right end.
8.7 <---- One decimal place
* 7 <---- Zero decimal places ( 7 is a whole number)
60.9 <---- One decimal places in the product

So 60.9 is the product. Type 60.9 and click submit.

\section*{Algebraic Expression:}
20.88

\section*{Hints:}
- First, multiply 36 by 58 , ignoring the decimal point.
\[
3.6
\]
* 5.8
\[
288
\]

180
2088
- Then count the total number of decimal places in the factors and add them.
3.6 <---- One decimal place
* 5.8 <---- One decimal place
\[
288
\]

180
2088
- Insert the decimal point two places from the right end.
3.6 <---- One decimal place
* 5.8 <---- One decimal place
\[
288
\]

180
20.88 <---- Two decimal places in the product

So 20.88 is the product.

\section*{72) Problem \#PRAJN6M "PRAJN6M - Multiplying Decimals"}

What is \(5.7 \times 1.89\) ?

\section*{Algebraic Expression:}
\(\sqrt{10.773}\)

- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.89
x 5.7
10.773

Type in 10.773

\section*{73) Problem \#PRAJN43 "PRAJN43 - Multiplying Decimals"}

What is \(9.7 \times 3.21\) ?

\section*{Algebraic Expression:}
31.137

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.21
x 9.7
31.137

Type in 31.137

\section*{74) Problem \#PRAJN5T "PRAJN5T - Multiplying Decimals"}

What is \(5.2 \times 0.56\) ?
Algebraic Expression:
2.912

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
0.56
\(\times \quad \underline{2}\)
2.912

Type in 2.912
75) Problem \#PRAJN8M "PRAJN8M - 205620 - Multiplicantion of decimals - Tenths place" Multiply: 4.8 * 8.7?

\section*{Algebraic Expression:}

\subsection*{41.76}

\section*{Hints:}

4.8
* 8.7 336
384
4176
- Then count the total number of decimal places in the factors and add them.
4.8 <---- One decimal place
* 8.7 <---- One decimal place 336
384
4176
- Insert the decimal point two places from the right end.
4.8 <---- One decimal place
* 8.7 <---- One decimal place 336
384
41.76 <---- Two decimal places in the product

So 41.76 is the product.

\section*{76) Problem \#PRAJN5Y "PRAJN5Y - Multiplying Decimals"}

What is \(5.8 \times 4.93\) ?
Algebraic Expression:
\(\sqrt{28.594}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
4.93
x 5.8
28.594

Type in 28.594
77) Problem \#PRAJPBE "PRAJPBE - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.3 and 4

\section*{Algebraic Expression:}
33.2

\section*{Hints:}
- Lets multiply 8.3 by 4 , ignoring the decimal point.
8.3

- Count the total number of decimal places and add them.
8.3 <---- Two decimal place
* 4 <---- Zero decimal places (4 is a whole number)
- Insert the decimal point two places from the right end.
8.3 <---- One decimal place
* 4 <---- Zero decimal places ( 4 is a whole number)
33.2 <---- One decimal places in the product

So 33.2 is the product. Type 33.2 and click submit.

\section*{78) Problem \#PRAJPAJ "PRAJPAJ - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 2.5 and 5

\section*{Algebraic Expression:}
\(\sqrt{ } 12.5\)

\section*{Hints:}
- Lets multiply 2.5 by 5 , ignoring the decimal point.
2.5
\(\begin{array}{r}* \quad 5 \\ \hline 125\end{array}\)
- Count the total number of decimal places and add them.
2.5 <---- Two decimal place
* 5 <---- Zero decimal places (5 is a whole number)
- Insert the decimal point two places from the right end.
2.5 <---- One decimal place
* 5 <---- Zero decimal places (5 is a whole number)
12.5 <---- One decimal places in the product

So 12.5 is the product. Type 12.5 and click submit.

\section*{79) Problem \#PRAJN9F "PRAJN9F - 205620 - Multiplicantion of decimals - Tenths place"}

Multiply: 8.4 * 6.7?

\section*{Algebraic Expression:}
\(\sqrt{56.28}\)

\section*{Hints:}
- First, multiply 84 by 67 , ignoring the decimal point.
8.4
* 6.7

\section*{588}
\[
504
\]

5628
- Then count the total number of decimal places in the factors and add them.
8.4 <---- One decimal place
* 6.7 <---- One decimal place

588
504
5628
- Insert the decimal point two places from the right end.
8.4 <---- One decimal place
* 6.7 <---- One decimal place

So 56.28 is the product.

\section*{80) Problem \#PRAJN6B "PRAJN6B - Multiplying Decimals"}

What is \(9.7 \times 4.33\) ?

\section*{Algebraic Expression:}
\(\sqrt{42.001}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
4.33
x 9.7
42.001

Type in 42.001

\section*{81) Problem \#PRAJPA3 "PRAJPA3-205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 4.5 and 2

\section*{Algebraic Expression:}
\(\sqrt{ } 9\)

\section*{Hints:}
- Lets multiply 4.5 by 2 , ignoring the decimal point.
4.5
\(\begin{array}{r}* \quad 2 \\ \hline 90\end{array}\)

- Count the total number of decimal places and add them.
4.5 <---- Two decimal place
* \(2<----\) Zero decimal places (2 is a whole number)
- Insert the decimal point two places from the right end.
4.5 <---- One decimal place
* \(2<----\) Zero decimal places ( 2 is a whole number)

9 <---- One decimal places in the product

So 9 is the product. Type 9 and click submit.

Find the product of 7.3 and 3
Algebraic Expression:
\(\sqrt{ } 21.9\)

\section*{Hints:}
- Lets multiply 7.3 by 3 , ignoring the decimal point.
7.3
* 3

219
- Count the total number of decimal places and add them.
7.3 <---- Two decimal place
* 3 <---- Zero decimal places (3 is a whole number)
- Insert the decimal point two places from the right end.
7.3 <---- One decimal place
* 3 <---- Zero decimal places (3 is a whole number)
21.9 <---- One decimal places in the product

So 21.9 is the product. Type 21.9 and click submit.

\section*{83) Problem \#PRAJN6D "PRAJN6D - Multiplying Decimals"}

What is \(6.1 \times 3.07\) ?

\section*{Algebraic Expression:}
\(\sqrt{18.727}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.

-
3.07
x 6.1
18.727

Type in 18.727

\section*{84) Problem \#PRAJN5E "PRAJN5E - Multiplying Decimals"}

What is \(7.6 \times 3.09\) ?

\section*{Algebraic Expression:}

\subsection*{23.484}

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.09
x \(\quad 7.6\)
23.484

Type in 23.484
85) Problem \#PRAJN84 "PRAJN84-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 7.8 * 2.5 ?
Algebraic Expression:
19.5

\section*{Hints:}
- First, multiply 78 by 25 , ignoring the decimal point.
7.8
* 2.5

390
156
1950
- Then count the total number of decimal places in the factors and add them.
7.8 <---- One decimal place
* 2.5 <---- One decimal place

390
156
1950
- Insert the decimal point two places from the right end.
7.8 <---- One decimal place
* 2.5 <---- One decimal place 390

19.5
<---- Two decimal places in the product

So 19.5 is the product.

\section*{86) Problem \#PRAJN6K "PRAJN6K - Multiplying Decimals"}

What is \(9.8 \times 3.12\) ?
Algebraic Expression:
\(\sqrt{ } 30.576\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
x \(\underline{9.8}\)
30.576

Type in 30.576
87) Problem \#PRAJPA7 "PRAJPA7-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.7 and 8

\section*{Algebraic Expression:}
\(\sqrt{ } 69.6\)

\section*{Hints:}
- Lets multiply 8.7 by 8 , ignoring the decimal point.
8.7
* 8

696
- Count the total number of decimal places and add them.
8.7 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
8.7 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
69.6 <---- One decimal places in the product

So 69.6 is the product. Type 69.6 and click submit.

\section*{88) Problem \#PRAJN8K "PRAJN8K - 205620 - Multiplicantion of decimals - Tenths place"}

Multiply: 2.5 * 3.7?

\(\sqrt{ } 9.25\)

\section*{Hints:}
- First, multiply 25 by 37 , ignoring the decimal point.
2.5
* 3.7

175
75
925
- Then count the total number of decimal places in the factors and add them.
2.5 <---- One decimal place
* 3.7 <---- One decimal place 175
75
925
- Insert the decimal point two places from the right end.
2.5 <---- One decimal place
* 3.7 <---- One decimal place

175
75
9.25 <---- Two decimal places in the product

So 9.25 is the product.

\section*{89) Problem \#PRAJN6F "PRAJN6F - Multiplying Decimals"}

What is \(8.5 \times 0.58\) ?
Algebraic Expression:
4.93

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
0.58
x 8.5
4.93

Type in 4.93

\section*{90) Problem \#PRAJN46 "PRAJN46 - Multiplying Decimals"}

What is \(9.2 \times 1.87\) ?

\section*{Algebraic Expression:}
17.204

\section*{Hints:}

- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.87
x 9.2
17.204

Type in 17.204
91) Problem \#PRAJN9J "PRAJN9J - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 4.6 * 6.5 ?
Algebraic Expression:
\(\sqrt{29.9}\)

\section*{Hints:}
- First, multiply 46 by 65 , ignoring the decimal point.
4.6
* 6.5

230
276 2990
- Then count the total number of decimal places in the factors and add them.
4.6 <---- One decimal place
* 6.5 <---- One decimal place

230
276
2990
- Insert the decimal point two places from the right end.
4.6 <---- One decimal place
* 6.5 <---- One decimal place

230
276
29.9 <---- Two decimal places in the product

So 29.9 is the product.
92) Problem \#PRAJN8Z "PRAJN8Z - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 6.6 * 4.6?

\section*{Algebraic Expression:}
\(\sqrt{ } 30.36\)

\section*{Hints:}
- First, multiply 66 by 46 , ignoring the decimal point.

264
3036
- Then count the total number of decimal places in the factors and add them.
6.6 <---- One decimal place
* 4.6 <---- One decimal place

396
264
3036
- Insert the decimal point two places from the right end.
6.6 <---- One decimal place
* 4.6 <---- One decimal place

So 30.36 is the product.

\section*{93) Problem \#PRAJN47 "PRAJN47 - Multiplying Decimals"}

What is \(9.4 \times 2.99\) ?
Algebraic Expression:
28.106

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.99
x 9.4
28.106

Type in 28.106

\section*{94) Problem \#PRAJN6P "PRAJN6P - Multiplying Decimals"}

What is \(6.5 \times 2.13\) ?
Algebraic Expression:
\(\sqrt{13.845}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.13
 13.845

Type in 13.845
95) Problem \#PRAJN9T "PRAJN9T - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 6.2 * 5.8 ?

\section*{Algebraic Expression:}
35.96

\section*{Hints:}
- First, multiply 62 by 58 , ignoring the decimal point.
6.2
* 5.8
- Then count the total number of decimal places in the factors and add them.
6.2 <---- One decimal place
* 5.8 <---- One decimal place 496
310
3596
- Insert the decimal point two places from the right end.
6.2 <---- One decimal place
* 5.8 <---- One decimal place 496
310
35.96 <---- Two decimal places in the product

So 35.96 is the product.

\section*{96) Problem \#PRAJPAN "PRAJPAN - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 2.5 and 7

\section*{Algebraic Expression:}
\[
17.5
\]

\section*{Hints:}
- Lets multiply 2.5 by 7 , ignoring the decimal point.
2.5
* \(\quad 7\)
- Count the total number of decimal places and add them.
2.5 <---- Two decimal place
* 7 <---- Zero decimal places (7 is a whole number)
- Insert the decimal point two places from the right end.
2.5 <---- One decimal place
* 7 <---- Zero decimal places ( 7 is a whole number)
17.5 <---- One decimal places in the product

So 17.5 is the product. Type 17.5 and click submit.
97) Problem \#PRAJN5Z "PRAJN5Z - Multiplying Decimals"

What is \(5.7 \times 4.62\) ?

\section*{Algebraic Expression:}
26.334

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
4.62
x 5.7
26.334

Type in 26.334

\section*{98) Problem \#PRAJN5B "PRAJN5B - Multiplying Decimals"}

What is \(5.1 \times 2.82\) ?

\section*{Algebraic Expression:}

\section*{\(\sqrt{ } 14.382\)}

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.82
x 5.1
14.382

Type in 14.382

\section*{99) Problem \#PRAJN5X "PRAJN5X - Multiplying Decimals"}

What is \(4.9 \times 3.99\) ?

\section*{Algebraic Expression:}
\(\sqrt{19.551}\)

\section*{Hints:}
- Multiply the numbers without the decimals.

- After counting, have that amount of numbers after the decimal in your answer.
-
3.99
x 4.9
19.551

Type in 19.551

\section*{100) Problem \#PRAJPA4 "PRAJPA4-205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 2.6 and 5

\section*{Algebraic Expression:}
\(\sqrt{13}\)

\section*{Hints:}
- Lets multiply 2.6 by 5 , ignoring the decimal point.
- Count the total number of decimal places and add them.
2.6 <---- Two decimal place
* 5 <---- Zero decimal places (5 is a whole number)
- Insert the decimal point two places from the right end.
2.6 <---- One decimal place
* \(5<----\) Zero decimal places (5 is a whole number)

13 <---- One decimal places in the product

So 13 is the product. Type 13 and click submit.

\section*{101) Problem \#PRAJN48 "PRAJN48 - Multiplying Decimals"}

What is \(6.5 \times 3.89\) ?

\section*{Algebraic Expression:}
\(\sqrt{25.285}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
\[
3.89
\]
x 6.5
25.285

102) Problem \#PRAJPAA "PRAJPAA - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 6.6 and 8

\section*{Algebraic Expression:}
\(\sqrt{ } 52.8\)

\section*{Hints:}
- Lets multiply 6.6 by 8 , ignoring the decimal point.
6.6
\(\begin{array}{r}* \quad 8 \\ \hline 528\end{array}\)
- Count the total number of decimal places and add them.
6.6 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
6.6 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
52.8 <---- One decimal places in the product

So 52.8 is the product. Type 52.8 and click submit.

\section*{103) Problem \#PRAJPBD "PRAJPBD - 205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 7.2 and 4

\section*{Algebraic Expression:}
28.8

\section*{Hints:}
- Lets multiply 7.2 by 4 , ignoring the decimal point.
\[
\begin{array}{r}
7.2 \\
* \quad 4 \\
\hline 288
\end{array}
\]
- Count the total number of decimal places and add them.
7.2 <---- Two decimal place
* 4 <---- Zero decimal places (4 is a whole number)
- Insert the decimal point two places from the right end.
7.2 <---- One decimal place
* 4 <---- Zero decimal places ( 4 is a whole number)


So 28.8 is the product. Type 28.8 and click submit.

\section*{104) Problem \#PRAJN54 "PRAJN54 - Multiplying Decimals"}

What is \(7.4 \times 1.22\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 9.028\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.22
x \(\quad \underline{7.4}\)

Type in 9.028
105) Problem \#PRAJN9W "PRAJN9W-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 4.7 * 8.8 ?

\section*{Algebraic Expression:}
41.36

\section*{Hints:}
- First, multiply 47 by 88 , ignoring the decimal point.
4.7
* 8.8

376
\(\underline{376}\)
4136
- Then count the total number of decimal places in the factors and add them.
4.7 <---- One decimal place
* 8.8 <---- One decimal place

376
\(\underline{376}\)
4136
- Insert the decimal point two places from the right end.
4.7 <---- One decimal place
* 8.8 <---- One decimal place

376
\(\underline{376}\)
41.36 <---- Two decimal places in the product

So 41.36 is the product.

106) Problem \#PRAJPAV "PRAJPAV - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 6.7 and 8

\section*{Algebraic Expression:}
\(\sqrt{53.6}\)

\section*{Hints:}
- Lets multiply 6.7 by 8 , ignoring the decimal point.
6.7
* 8 536
- Count the total number of decimal places and add them.
6.7 <---- Two decimal place
* 8 <---- Zero decimal places (8 is a whole number)
- Insert the decimal point two places from the right end.
6.7 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
53.6 <---- One decimal places in the product

So 53.6 is the product. Type 53.6 and click submit.
107) Problem \#PRAJPAE "PRAJPAE - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 2.2 and 3
Algebraic Expression:
6.6

\section*{Hints:}
- Lets multiply 2.2 by 3 , ignoring the decimal point.
\[
\begin{array}{r}
2.2 \\
* \quad 3 \\
\hline 66
\end{array}
\]
- Count the total number of decimal places and add them.
2.2 <---- Two decimal place
* 3 <---- Zero decimal places ( 3 is a whole number)
- Insert the decimal point two places from the right end.
2.2 <---- One decimal place
* \(3<---\) Zero decimal places ( 3 is a whole number)
6.6 <---- One decimal places in the product

So 6.6 is the product. Type 6.6 and click submit.
108) Problem \#PRAJN88 "PRAJN88-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 4.3 * 2.7?

\section*{Algebraic Expression:}
11.61

\section*{Hints:}
- First, multiply 43 by 27 , ignoring the decimal point.
4.3
* 2.7
- Then count the total number of decimal places in the factors and add them.
4.3 <---- One decimal place
* 2.7 <---- One decimal place

301
86
1161
- Insert the decimal point two places from the right end.
4.3 <---- One decimal place
* 2.7 <---- One decimal place

301
86
11.61 <---- Two decimal places in the product

So 11.61 is the product.
109) Problem \#PRAJN94 "PRAJN94-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.6 and 4
Algebraic Expression:
\(\sqrt{ } 30.4\)

\section*{Hints:}
- Lets multiply 7.6 by 4 , ignoring the decimal point.
\begin{tabular}{r}
7.6 \\
\(* \quad 4\) \\
\hline 304
\end{tabular}
- Count the total number of decimal places and add them.
7.6 <---- Two decimal place
* \(4<-\)--- Zero decimal places (4 is a whole number)
- Insert the decimal point two places from the right end.
7.6 <---- One decimal place
* 4 <---- Zero decimal places (4 is a whole number)
30.4 <---- One decimal places in the product

So 30.4 is the product. Type 30.4 and click submit.

\section*{110) Problem \#PRAJN53 "PRAJN53 - Multiplying Decimals"}

What is \(8.4 \times 1.36\) ?

\section*{Algebraic Expression:}
\(\sqrt{11.424}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.36
x 8.4
11.424

Type in 11.424
111) Problem \#PRAJN9H "PRAJN9H - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 6.4 * 4.4?

\section*{Algebraic Expression:}
28.16

\section*{Hints:}
- First, multiply 64 by 44 , ignoring the decimal point.
6.4
* 4.4

256
256
2816
- Then count the total number of decimal places in the factors and add them.
6.4 ----- One decimal place
* 4.4 <---- One decimal place 256
256
2816
- Insert the decimal point two places from the right end.
6.4 <---- One decimal place
* 4.4 ----- One decimal place
28.16 <---- Two decimal places in the product

So 28.16 is the product.

\section*{112) Problem \#PRAJN5C "PRAJN5C - Multiplying Decimals"}

What is \(7.6 \times 4.19\) ?

\section*{Algebraic Expression:}
31.844

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
x \(\quad 7.6\)
31.844

Type in 31.844
113) Problem \#PRAJN97 "PRAJN97-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.8 and 3

\section*{Algebraic Expression:}
23.4

\section*{Hints:}
- Lets multiply 7.8 by 3 , ignoring the decimal point.
7.8
* 3

234
- Count the total number of decimal places and add them.
7.8 <---- Two decimal place
* 3 <---- Zero decimal places ( 3 is a whole number)
- Insert the decimal point two places from the right end.
7.8 <---- One decimal place
* \(3<-\)--- Zero decimal places ( 3 is a whole number)
23.4 <---- One decimal places in the product

So 23.4 is the product. Type 23.4 and click submit.
114) Problem \#PRAJN9R "PRAJN9R - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 5.2 * 6.6 ?
https \(/\) Arg
\(\sqrt{ } 34.32\)

\section*{Hints:}
- First, multiply 52 by 66 , ignoring the decimal point.
5.2
* 6.6

312
312
3432
- Then count the total number of decimal places in the factors and add them.
5.2 <---- One decimal place
* 6.6 <---- One decimal place

312
312
3432
- Insert the decimal point two places from the right end.
5.2 <---- One decimal place
* 6.6 <---- One decimal place

312
312
34.32
<---- Two decimal places in the product

So 34.32 is the product.
115) Problem \#PRAJN8U "PRAJN8U - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 5.2 * 5.8 ?

\section*{Algebraic Expression:}
30.16

\section*{Hints:}
- First, multiply 52 by 58 , ignoring the decimal point.
5.2
* 5.8

416
260
3016
- Then count the total number of decimal places in the factors and add them.
5.2 <---- One decimal place
* 5.8 <---- One decimal place

416
260
3016
- Insert the decimal point two places from the right end.
* 5.8 <---- One decimal place

416
260
30.16 <---- Two decimal places in the product

So 30.16 is the product.

\section*{116) Problem \#PRAJN8X "PRAJN8X - 205620 - Multiplicantion of decimals - Tenths place"}

Multiply: 6.2 * 6.8 ?
Algebraic Expression:
\(\sqrt{ } 42.16\)

\section*{Hints:}
- First, multiply 62 by 68 , ignoring the decimal point.
* 6.8
- Then count the total number of decimal places in the factors and add them.
6.2 <---- One decimal place
* 6.8 <---- One decimal place

496
372
4216
- Insert the decimal point two places from the right end.
6.2 <---- One decimal place
* 6.8 <---- One decimal place

496
372
42.16 <---- Two decimal places in the product

So 42.16 is the product.

\section*{117) Problem \#PRAJN9K "PRAJN9K - 205620 - Multiplicantion of decimals - Tenths place"}

Multiply: 2.2 * 7.8?

\section*{Algebraic Expression:}
, 17.16

\section*{Hints:}
- First, multiply 22 by 78, ignoring the decimal point.
2.2
* 7.8

176
154

- Then count the total number of decimal places in the factors and add them.
2.2 <---- One decimal place
* 7.8 <---- One decimal place 176
154
1716
- Insert the decimal point two places from the right end.
2.2 <---- One decimal place
* 7.8 <---- One decimal place 176
154
17.16 <---- Two decimal places in the product

So 17.16 is the product.
118) Problem \#PRAJN98 "PRAJN98-205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.4 and 3

\section*{Algebraic Expression:}
22.2

\section*{Hints:}
- Lets multiply 7.4 by 3 , ignoring the decimal point.
7.4
* 3

222
- Count the total number of decimal places and add them.
7.4 <---- Two decimal place
* 3 <---- Zero decimal places ( 3 is a whole number)
- Insert the decimal point two places from the right end.
7.4 <---- One decimal place
* 3 <---- Zero decimal places (3 is a whole number)
22.2 <---- One decimal places in the product

So 22.2 is the product. Type 22.2 and click submit.

\section*{119) Problem \#PRAJN5U "PRAJN5U - Multiplying Decimals"}

What is \(8.2 \times 3.78\) ?

\section*{Algebraic Expression:}
30.996
https://wHiattsments.org/build/print/sequence/803956?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.78
x 8.2
30.996

Type in 30.996

\section*{120) Problem \#PRAJN6Q "PRAJN6Q - Multiplying Decimals"}

What is \(8.2 \times 2.17\) ?
Algebraic Expression:
\(\sqrt{17.794}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.17
x 8.2
17.794

Type in 17.794
121) Problem \#PRAJPAC "PRAJPAC - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 5.7 and 5

\section*{Algebraic Expression:}
28.5

\section*{Hints:}
- Lets multiply 5.7 by 5 , ignoring the decimal point.
5.7
* 5
- Count the total number of decimal places and add them.
5.7 <---- Two decimal place
* 5 <---- Zero decimal places ( 5 is a whole number)
- Insert the decimal point two places from the right end.
5.7 <---- One decimal place
* 5 <---- Zero decimal places (5 is a whole number)
28.5 <---- One decimal places in the product

So 28.5 is the product. Type 28.5 and click submit.
122) Problem \#PRAJPAU "PRAJPAU - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 6.5 and 2
Algebraic Expression:
13
Hints:
- Lets multiply 6.5 by 2 , ignoring the decimal point.
6.5
* 2

130
- Count the total number of decimal places and add them.
6.5 <---- Two decimal place
* 2 <---- Zero decimal places (2 is a whole number)
- Insert the decimal point two places from the right end.
6.5 <---- One decimal place
* 2 <---- Zero decimal places (2 is a whole number)

13 <---- One decimal places in the product

So 13 is the product. Type 13 and click submit.

\section*{123) Problem \#PRAJN9Q "PRAJN9Q - 205620 - Multiplicantion of decimals - Tenths place"}

Multiply: 5.8 * 7.7?
Algebraic Expression:
\(\sqrt{ } 44.66\)

\section*{Hints:}
- First, multiply 58 by 77, ignoring the decimal point.
5.8
* 7.7

406
406
4466
- Then count the total number of decimal places in the factors and add them.
5.8 <---- One decimal place
* 7.7 <---- One decimal place

406
406
4466
- Insert the decimal point two places from the right end.
5.8 <---- One decimal place
* 7.7 <---- One decimal place

406
406
44.66 <---- Two decimal places in the product

So 44.66 is the product.
124) Problem \#PRAJN9U "PRAJN9U - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.8 * 7.5?
Algebraic Expression:
\(\sqrt{ } 66\)

\section*{Hints:}
- First, multiply 88 by 75 , ignoring the decimal point.
8.8
* 7.5

440
616 6600
- Then count the total number of decimal places in the factors and add them.
8.8 <---- One decimal place
* 7.5 <---- One decimal place

440
616
6600
- Insert the decimal point two places from the right end.
8.8 <---- One decimal place
* 7.5 <---- One decimal place

616
66 <---- Two decimal places in the product

So 66 is the product.

\section*{125) Problem \#PRAJN5P "PRAJN5P - Multiplying Decimals"}

What is \(7.8 \times 1.9 ?\)
Algebraic Expression:
14.82

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.

1.9
x 7.8
14.82

Type in 14.82

\section*{126) Problem \#PRAJN59 "PRAJN59 - Multiplying Decimals"}

What is \(5.7 \times 2.09\) ?

\section*{Algebraic Expression:}
11.913

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
2.09
x 5.7
11.913

Type in 11.913
127) Problem \#PRAJN86 "PRAJN86-205620 - Multiplicantion of decimals - Tenths place"

Multiply: 2.2 * 3.5?

\section*{Algebraic Expression:}
\(\sqrt{ } 7.7\)

\section*{Hints:}
- First, multiply 22 by 35, ignoring the decimal point.
2.2
* 3.5

110
\(\frac{66}{770}\)
770
- Then count the total number of decimal places in the factors and add them.
2.2 <---- One decimal place
* 3.5 <---- One decimal place

110
66
770
- Insert the decimal point two places from the right end.
2.2 <---- One decimal place
* 3.5 <---- One decimal place

110
66
7.7 <---- Two decimal places in the product

So 7.7 is the product.
128) Problem \#PRAJN9A "PRAJN9A - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 4.5 * 2.6?

\section*{Algebraic Expression:}
\(\sqrt{ } 11.7\)

\section*{Hints:}
- First, multiply 45 by 26 , ignoring the decimal point.
4.5
* 2.6
- Then count the total number of decimal places in the factors and add them.
4.5 <---- One decimal place
* 2.6 <---- One decimal place

270
90
1170
- Insert the decimal point two places from the right end.
4.5 <---- One decimal place
* 2.6 <---- One decimal place 270
90
11.7 <---- Two decimal places in the product

So 11.7 is the product.
129) Problem \#PRAJN9N "PRAJN9N - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 5.7 * 4.7?

\section*{Algebraic Expression:}
\(\sqrt{ } 26.79\)

\section*{Hints:}
- First, multiply 57 by 47 , ignoring the decimal point.
5.7
* 4.7

399
228 2679
- Then count the total number of decimal places in the factors and add them.
5.7 <---- One decimal place

399
228
2679
- Insert the decimal point two places from the right end.
5.7 <---- One decimal place
* 4.7 <---- One decimal place

399
228
26.79

\section*{<---- Two decimal places in the product}

So 26.79 is the product.

\section*{Algebraic Expression:}
59.16

\section*{Hints:}
- First, multiply 87 by 68 , ignoring the decimal point.
8.7
* 6.8

696
522
5916
- Then count the total number of decimal places in the factors and add them.
8.7 <---- One decimal place
* 6.8 <---- One decimal place

696
522
5916
- Insert the decimal point two places from the right end.
8.7 <---- One decimal place
* 6.8 <---- One decimal place

696
522
59.16 <---- Two decimal places in the product

So 59.16 is the product.

\section*{131) Problem \#PRAJN95 "PRAJN95-205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 8.5 and 3
Algebraic Expression:
\(\sqrt{25.5}\)

- Lets multiply 8.5 by 3 , ignoring the decimal point.
8.5
\(+\quad 3\)
255
- Count the total number of decimal places and add them.
8.5 <---- Two decimal place
* 3 <---- Zero decimal places (3 is a whole number)
- Insert the decimal point two places from the right end.
8.5 <---- One decimal place
* 3 <---- Zero decimal places (3 is a whole number)
25.5 <---- One decimal places in the product

So 25.5 is the product. Type 25.5 and click submit.
132) Problem \#PRAJPAM "PRAJPAM - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 3.4 and 8

\section*{Algebraic Expression:}
27.2

\section*{Hints:}
- Lets multiply 3.4 by 8 , ignoring the decimal point.
3.4
* 8

272
- Count the total number of decimal places and add them.
3.4 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
3.4 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
27.2 <---- One decimal places in the product

So 27.2 is the product. Type 27.2 and click submit.

\section*{133) Problem \#PRAJN6E "PRAJN6E - Multiplying Decimals"}

What is \(9.8 \times 1.05\) ?

\(\sqrt{10.29}\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
1.05
x \(\underline{9.8}\)
10.29

Type in 10.29

」 42.4

\section*{Hints:}
- Lets multiply 5.3 by 8 , ignoring the decimal point.
5.3
\(\begin{array}{r}* \quad 8 \\ \hline 424\end{array}\)
- Count the total number of decimal places and add them.
5.3 <---- Two decimal place
* 8 <---- Zero decimal places (8 is a whole number)
- Insert the decimal point two places from the right end.
5.3 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
42.4 <---- One decimal places in the product

So 42.4 is the product. Type 42.4 and click submit.

\section*{135) Problem \#PRAJN5R "PRAJN5R - Multiplying Decimals"}

What is \(8.7 \times 0.23\) ?

\section*{Algebraic Expression:}
2.001

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
\[
\begin{aligned}
& \text { rasssimen } \\
& 0.23
\end{aligned}
\]
x 8.7
2.001

Type in 2.001
136) Problem \#PRAJPAK "PRAJPAK - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.5 and 8

\section*{Algebraic Expression:}
\(\sqrt{60}\)

\section*{Hints:}
- Lets multiply 7.5 by 8 , ignoring the decimal point.
- Count the total number of decimal places and add them.
7.5 <---- Two decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)
- Insert the decimal point two places from the right end.
7.5 <---- One decimal place
* 8 <---- Zero decimal places ( 8 is a whole number)

60 <---- One decimal places in the product

So 60 is the product. Type 60 and click submit.
137) Problem \#PRAJN8Y "PRAJN8Y - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 4.8 * 8.6 ?

\section*{Algebraic Expression:}
41.28

\section*{Hints:}
- First, multiply 48 by 86 , ignoring the decimal point.
4.8
* 8.6 288
384
4128
- Then count the total number of decimal places in the factors and add them.
4.8 <---- One decimal place
* 8.6 <---- One decimal place

288
384
4128
- Insert the decimal point two places from the right end.
4.8 <---- One decimal place
* 8.6 <---- One decimal place 288
384
41.28
<---- Two decimal places in the product

So 41.28 is the product.

Find the product of 6.4 and 6

\section*{Algebraic Expression:}

\section*{Hints:}
- Lets multiply 6.4 by 6 , ignoring the decimal point.
6.4
* 6

384
- Count the total number of decimal places and add them.
6.4 <---- Two decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
- Insert the decimal point two places from the right end.
6.4 <---- One decimal place
* 6 <---- Zero decimal places (6 is a whole number)
38.4 <---- One decimal places in the product

So 38.4 is the product. Type 38.4 and click submit.
139) Problem \#PRAJPBJ "PRAJPBJ - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 6.2 and 7

\section*{Algebraic Expression:}
\[
43.4
\]

\section*{Hints:}
- Lets multiply 6.2 by 7 , ignoring the decimal point.
6.2
\(\begin{array}{r}* \quad 7 \\ \hline 434\end{array}\)

- Count the total number of decimal places and add them.
6.2 <---- Two decimal place
* 7 <---- Zero decimal places (7 is a whole number)
- Insert the decimal point two places from the right end.
6.2 <---- One decimal place
* 7 <---- Zero decimal places ( 7 is a whole number)
43.4 <---- One decimal places in the product

So 43.4 is the product. Type 43.4 and click submit.

Find the product of 5.2 and 7
Algebraic Expression:
\(\sqrt{ } 36.4\)

\section*{Hints:}
- Lets multiply 5.2 by 7 , ignoring the decimal point.
5.2
\(\begin{array}{r}* \quad 7 \\ \hline 364\end{array}\)
- Count the total number of decimal places and add them.
5.2 <---- Two decimal place
* 7 <---- Zero decimal places (7 is a whole number)
- Insert the decimal point two places from the right end.
5.2 <---- One decimal place
* 7 <---- Zero decimal places (7 is a whole number)
36.4 <---- One decimal places in the product

So 36.4 is the product. Type 36.4 and click submit.

\section*{141) Problem \#PRAJN58 "PRAJN58 - Multiplying Decimals"}

What is \(6 \times 2.88\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 17.28\)

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.

-
2.88
x \(\underline{6}\)
17.28

Type in 17.28
142) Problem \#PRAJN8J "PRAJN8J - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.5 * 5.8 ?

\section*{Algebraic Expression:}
49.3

\section*{Hints:}
- First, multiply 85 by 58 , ignoring the decimal point.
* 5.8

680
425
4930
- Then count the total number of decimal places in the factors and add them.
8.5 <---- One decimal place
* 5.8 <---- One decimal place

680
425
4930
- Insert the decimal point two places from the right end.
8.5 <---- One decimal place
* 5.8 <---- One decimal place

680
425
49.3 <---- Two decimal places in the product

So 49.3 is the product.

\section*{143) Problem \#PRAJN92 "PRAJN92-205620 - Multiplicantion of decimals - Tenths place"}

Find the product of 3.2 and 4

\section*{Algebraic Expression:}
\(\sqrt{12.8}\)

\section*{Hints:}
- Lets multiply 3.2 by 4 , ignoring the decimal point.
3.2
* 4

128
- Count the total number of decimal places and add them.
3.2 <---- Two decimal place
* 4 <---- Zero decimal places (4 is a whole number)
- Insert the decimal point two places from the right end.
3.2 <---- One decimal place
* \(4<----\) Zero decimal places ( 4 is a whole number)
12.8 <---- One decimal places in the product

So 12.8 is the product. Type 12.8 and click submit.

\section*{Algebraic Expression:}
29.24

\section*{Hints:}
- First, multiply 43 by 68 , ignoring the decimal point.
4.3
* 6.8

344
\(\underline{258}\)
2924
- Then count the total number of decimal places in the factors and add them.
4.3 <---- One decimal place
* 6.8 <---- One decimal place

344
\(\underline{258}\)
2924
- Insert the decimal point two places from the right end.
4.3 <---- One decimal place
* 6.8 <---- One decimal place

344
258
29.24 <---- Two decimal places in the product

So 29.24 is the product.

\section*{145) Problem \#PRAJN49 "PRAJN49 - Multiplying Decimals"}

What is \(7.2 \times 3.5\) ?

\section*{Algebraic Expression:}
\(\sqrt{25.2}\)

- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
3.5
x 7.2
25.2

Type in 25.2
146) Problem \#PRAJPBH "PRAJPBH - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 7.5 and 4

\section*{Algebraic Expression:}

30

\section*{Hints:}
- Lets multiply 7.5 by 4 , ignoring the decimal point.
7.5
\(\begin{array}{r}* \quad 4 \\ \hline 300\end{array}\)
- Count the total number of decimal places and add them.
7.5 <---- Two decimal place
* 4 <---- Zero decimal places ( 4 is a whole number)
- Insert the decimal point two places from the right end.
7.5 <---- One decimal place
* 4 <---- Zero decimal places ( 4 is a whole number)

30 <---- One decimal places in the product

So 30 is the product. Type 30 and click submit.

\section*{147) Problem \#PRAJN5A "PRAJN5A - Multiplying Decimals"}

What is \(5 \times 2.79\) ?

\section*{Algebraic Expression:}
13.95

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
2.79
x \(\underline{5}\)


Type in 13.95

\section*{148) Problem \#PRAJN5G "PRAJN5G - Multiplying Decimals"}

What is \(6.4 \times 4.45\) ?

\section*{Algebraic Expression:}
28.48

\section*{Hints:}
- Multiply the numbers without the decimals.
- Count the numbers to the right of the decimal point on both numbers being multiplied.
- After counting, have that amount of numbers after the decimal in your answer.
-
\[
4.45
\]
x \(\underline{6.4}\)
28.48

Type in 28.48
149) Problem \#PRAJN8W "PRAJN8W - 205620 - Multiplicantion of decimals - Tenths place"

Multiply: 8.5 * 8.5 ?

\section*{Algebraic Expression:}
72.25

\section*{Hints:}
- First, multiply 85 by 85 , ignoring the decimal point.
8.5
* 8.5

425
680
7225
- Then count the total number of decimal places in the factors and add them.
8.5 <---- One decimal place
* 8.5 <---- One decimal place

425
680
7225
- Insert the decimal point two places from the right end.
8.5 ----- One decimal place
* 8.5 <---- One decimal place

425
680
72.25 <---- Two decimal places in the product

So 72.25 is the product.
150) Problem \#PRAJPAW "PRAJPAW - 205620 - Multiplicantion of decimals - Tenths place"

Find the product of 8.4 and 6

\section*{Algebraic Expression:}
\(\sqrt{50.4}\)

\section*{Hints:}
- Lets multiply 8.4 by 6 , ignoring the decimal point.
\[
\begin{array}{r}
8.4 \\
* \quad 6 \\
\hline 504
\end{array}
\]
- Count the total number of decimal places and add them.
8.4 <---- Two decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
- Insert the decimal point two places from the right end.
8.4 <---- One decimal place
* 6 <---- Zero decimal places ( 6 is a whole number)
50.4 <---- One decimal places in the product

So 50.4 is the product. Type 50.4 and click submit.

Problem Set "Adding Decimals 6.NS.B.3" id:[PSABFTC]

Select All
1) Problem \#PRAHCQ2 "PRAHCQ2 - Addition of decimals - Hundredths place"

What is \(72.57+6.78\) ?
Exact Match (case sensitive):
\(\sqrt{ } 79.35\)

\section*{Hints:}

\section*{PSABFTC 1.1}

-
When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.


Line up the decimal like this and add, keeping the decimal in place.

\section*{PSABFTC 1.3}

When you add you get:
72.57
\(\begin{array}{r}7.78 \\ +6.78 \\ \hline\end{array}\)
79.35

Type in 79.35.
2) Problem \#PRAHCMA "PRAHCMA - Addition of decimals - Tenths place + Thousandths place" What is \(2.6+7.552\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{10.152}\)
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\section*{PSABFTC 2.1}


When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.
You must line up the decimal to do this.

\section*{PSABFTC 2.2}


In this case we add 0 hundredths and 0 thousandths to 2.6 . This does not change the value of the number.
Line up the decimal like this and add, keeping the decimal in place.

\section*{PSABFTC 2.3}
-
When you add you get:
2.600
\(+7.552\)
10.152

Type in 10.152 .
3) Problem \#PRAHCMB "PRAHCMB - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\) What is \(262.4+459.325\) ?

\section*{Exact Match (case sensitive):}


\section*{PSABFTC 3.1}


When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.
You must line up the decimal to do this.

\section*{PSABFTC 3.2}
-
In this case we add 0 hundredths and 0 thousandths to 262.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.

\section*{PSABFTC 3.3}

-
When you add you get:
262.400
\(+459.325\)
721.725

Type in 721.725.
4) Problem \#PRAHCNB "PRAHCNB - 194969 - Mika - Addition of decimals - Range \(\mathbf{0} 01\) and 100 "

What is \(9.82+92.537\) ?

\section*{Exact Match (case sensitive):}
102.357
https://wHintitsments.org/build/print/sequence/803905?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 9.82 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 102.357 .
5) Problem \#PRAHCMX "PRAHCMX - Addition of decimals - Tenths place + Hundredths place"

What is \(18.5+8.83\) ?
Exact Match (case sensitive):
27.33

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 18.5 . This does not change the value of the number. Line up the decimal like this and add, keeping the decimal in place.
18.50
\(+8.83\)
- When you add you get:
18.50
\(+8.83\)
27.33

Type in 27.33.

\section*{6) Problem \#PRAHCKG "PRAHCKG - Addition of decimals - Tenths place + Thousandths place"} What is \(912.6+80.828\) ?
 Exact Match (case sensitive):
993.428

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 912.6 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
912.600
\(\begin{array}{r}+80.828 \\ \hline\end{array}\)
993.428

Type in 993.428 .

\section*{7) Problem \#PRAHCK2 "PRAHCK2 - Addition of decimals - Tenths place + Thousandths place"}

What is \(9.8+96.552\) ?

\section*{Exact Match (case sensitive):}
106.352

Hints:
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 9.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
9.800

106.352

Type in 106.352.
8) Problem \#PRAHCKP "PRAHCKP - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 "

What is \(10.2+40.416\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{50.616}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 10.2 . This does not change the value of the
number.
Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
10.200
\(+40.416\)
50.616

Type in 50.616 .

\section*{9) Problem \#PRAHCPP "PRAHCPP - 195379 - Mika - Addition of decimals - Range "}

What is \(36753+0.414675\) ?

\section*{Exact Match (case sensitive):}
36753.414675

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 36753 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
36753.000000
\(+0.414675\)
36753.414675

Type in 36753.414675.

What is \(75.1+48.8\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 123.9\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
75.1
\(+48.8\)
- When you add you get:
75.1
\(+48.8\)
123.9

Type in 123.9.
11) Problem \#PRAHCNV "PRAHCNV - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\) What is \(259.1+58.8\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{317.9}\)

\section*{Hints:}

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
259.1
\(+58.8\)
- When you add you get:
259.1
\(+58.8\)
317.9

Type in 317.9.

\section*{12) Problem \#PRAHCRB "PRAHCRB - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 "}

What is \(251.12+292.687 ?\)

\section*{Exact Match (case sensitive):}
, 543.807

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 251.12 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
251.120
\(+292.687\)
543.807

Type in 543.807.
 What is \(485.76+75.47\) ?
Exact Match (case sensitive):
, 561.23

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 561.23.
14) Problem \#PRAHCMD "PRAHCMD - 194969 - Mika - Addition of decimals - Range .001 and 100 "

What is \(325.6+114.571\) ?
Exact Match (case sensitive):
440.171

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 325.6. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
325.600
\(+114.571\)


Type in 440.171 .
15) Problem \#PRAHCPQ "PRAHCPQ - 195379-Mika - Addition of decimals - Range "

What is \(71992+0.407744\) ?

\section*{Exact Match (case sensitive):}
, 71992.407744

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 71992 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
71992.000000
\(+0.407744\)
71992.407744

Type in 71992.407744.
16) Problem \#PRAHCQ4 "PRAHCQ4 - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(669.4+4.47\) ?

\section*{Exact Match (case sensitive):}
673.87

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 669.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
669.40
\(+4.47\)
673.87

Type in 673.87.

\section*{Exact Match (case sensitive):}
/ 433.082

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 2.2 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
2.200
\(+430.882\)
433.082

Type in 433.082.

\section*{18) Problem \#PRAHCQ9 "PRAHCQ9 - \(\mathbf{1 9 4 9 6 9}\) - Mika - Addition of decimals - Range . \(\mathbf{0 0 1}\) and 100"}

What is \(316.62+366.418\) ?
Exact Match (case sensitive):
\(\sqrt{683.038}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 316.62 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 683.038.
\(\square\) 19) Problem \#PRAHCRD "PRAHCRD - Addition of decimals - Tenths place + Thousandths place"
What is \(11.5+555.325\) ?

\section*{Exact Match (case sensitive):}
, 566.825

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 11.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
11.500
\(\begin{array}{r}+555.325 \\ \hline\end{array}\)
566.825

Type in 566.825 .

What is \(37.32+773.855\) ?

\section*{Exact Match (case sensitive):}
, 811.175

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 37.32 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
37.320
\(+773.855\)
811.175

Type in 811.175.
21) Problem \#PRAHCQR "PRAHCQR - Addition of decimals - Tenths place + Thousandths place"

What is \(384.3+2.804\) ?
Exact Match (case sensitive):
\(\sqrt{387.104}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 384.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
384.300
\(+2.804\)
- When you add you get:
387.104

Type in 387.104.
22) Problem \#PRAHCKZ "PRAHCKZ - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(17.2+20.661\) ?

\section*{Exact Match (case sensitive):}
37.861

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 17.2 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
17.200
\(+20.661\)
37.861

Type in 37.861 .
23) Problem \#PRAHCN4 "PRAHCN4 - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(8.2+64.28\) ?
Exact Match (case sensitive):
\(\sqrt{ } 72.48\)
Hints:
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 8.2 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
\[
8.20
\]
\(\begin{array}{r}+64.28 \\ \hline\end{array}\)
72.48

Type in 72.48 .
24) Problem \#PRAHCKJ "PRAHCKJ - Addition of decimals - Tenths place + Thousandths place"

What is \(587.5+29.226\) ?

\section*{Exact Match (case sensitive):}
, 616.726

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 587.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
587.500
\(+29.226\)
- When you add you get:
587.500
\(+29.226\)
616.726

Type in 616.726.
25) Problem \#PRAHCK4 "PRAHCK4 - Addition of decimals - Tenths place + Thousandths place" What is \(1.4+82.826\) ?

\section*{Exact Match (case sensitive):}
https:///4w. 8.84 Ane2t.6org/build/print/sequence/803905?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 1.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 84.226.

\section*{26) Problem \#PRAHCKT "PRAHCKT - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)}

What is \(32.8+43.111\) ?
Exact Match (case sensitive):
75.911

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 32.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
32.800
\(+43.111\)
75.911

Type in 75.911.
27) Problem \#PRAHCQJ "PRAHCQJ - Addition of decimals - Tenths place + Thousandths place" What is \(72.5+8.575\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 81.075\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 72.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
72.500
\(+8.575\)
81.075

Type in 81.075 .

\section*{28) Problem \#PRAHCQG "PRAHCQG - Addition of decimals - Tenths place + Thousandths place"}

What is \(45.3+3.451\) ?
Exact Match (case sensitive):
\(\sqrt{ } 48.751\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 45.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
45.300
\(+3.451\)
48.751

Type in 48.751 .
29) Problem \#PRAHCM2 "PRAHCM2 - Addition of decimals - Ones place + Tenths place"

What is \(1+7.1\) ?
Exact Match (case sensitive):
\(\sqrt{ } 8.1\)
Hints:
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths to 1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
1.0
\(+7.1\)
8.1

Type in 8.1.
30) Problem \#PRAHCPT "PRAHCPT - 195379-Mika - Addition of decimals - Range "

What is \(9785+0.183551\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 9785.183551\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 9785 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
9785.000000
\(+0.183551\)
9785.183551

Type in 9785.183551 .
31) Problem \#PRAHCQZ "PRAHCQZ - Addition of decimals - Hundredths place"

What is \(19.14+2.95\) ?

\section*{Exact Match (case sensitive):}
- 22.09

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
19.14
\(+2.95\)
- When you add you get:
19.14
\(+2.95\)
22.09

Type in 22.09.
32) Problem \#PRAHCQ3 "PRAHCQ3-194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(182.6+3.42\) ?

\section*{Exact Match (case sensitive):}
186.02

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.


Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 186.02.
33) Problem \#PRAHCNP "PRAHCNP - 194969 - Mika - Addition of decimals - Range . 001 and \(\mathbf{1 0 0 "}\) What is \(351.883+29.263\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 381.146\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
351.883
\(+29.263\)
- When you add you get:
351.883
\(+29.263\)
381.146

Type in 381.146.

\section*{34) Problem \#PRAHCP4 "PRAHCP4-194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)}

What is \(1.71+1.421\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 1.71 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 3.131.
35) Problem \#PRAHCPR "PRAHCPR - 195379 - Mika - Addition of decimals - Range "

What is \(6856+0.312163\) ?
Exact Match (case sensitive):
\(\sqrt{6856.312163}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 6856 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
6856.000000
\(+0.312163\)

Type in 6856.312163 .

\section*{36) Problem \#PRAHCQH "PRAHCQH - Addition of decimals - Tenths place + Thousandths place"}

What is \(55.5+3.167\) ?

\section*{Exact Match (case sensitive):}
, 58.667

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 55.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
55.500
\(+3.167\)
58.667

Type in 58.667 .
37) Problem \#PRAHCP8 "PRAHCP8 - \(\mathbf{1 9 4 9 6 9}\) - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)

What is \(7.6+447.38\) ?
Exact Match (case sensitive):
454.98

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 7.6 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 454.98.
38) Problem \#PRAHCNU "PRAHCNU - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)

What is \(583.1+56.6\) ?
Exact Match (case sensitive):
639.7

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
583.1
\(+56.6\)
- When you add you get:
583.1
\(+56.6\)
639.7

Type in 639.7.

\section*{39) Problem \#PRAHCPW "PRAHCPW - 195379 - Mika - Addition of decimals - Range "}

What is \(54964+0.586581\) ?

\section*{Exact Match (case sensitive):}
, 54964.586581

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths
 and 0 militionths to 54944 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
54964.000000
\(+0.586581\)
54964.586581

Type in 54964.586581.
40) Problem \#PRAHCMT "PRAHCMT - 194969-Mika - Addition of decimals - Range . 001 and 100" What is \(379.76+478.37 ?\)

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 858.13\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
379.76
\(+478.37\)
- When you add you get:
379.76
\(+478.37\)
858.13

Type in 858.13.

\section*{41) Problem \#PRAHCQF "PRAHCQF - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)}

What is \(7.375+72.817\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 80.192.

\section*{42) Problem \#PRAHCQP "PRAHCQP - Addition of decimals - Tenths place + Thousandths place"}

What is \(138.5+4.515\) ?
Exact Match (case sensitive):
\(\sqrt{ } 143.015\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 138.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
138.500
\(+4.515\)
143.015

43) Problem \#PRAHCNY "PRAHCNY - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(401.3+168.55\) ?
Exact Match (case sensitive):
\(\sqrt{ } 569.85\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 401.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
401.30
\(+168.55\)
569.85

Type in 569.85 .

\section*{44) Problem \#PRAHCPB "PRAHCPB - Addition of decimals - Tenths place + Thousandths place"}

What is \(20.5+75.364\) ?
Exact Match (case sensitive):
\(\sqrt{ } 95.864\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 20.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 95.864 .
45) Problem \#PRAHCNH "PRAHCNH - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(856.38+9.578\) ?
Exact Match (case sensitive):
865.958

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 856.38 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
856.380
\(+9.578\)
865.958

Type in 865.958 .
46) Problem \#PRAHCMC "PRAHCMC - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100"

What is \(358.4+296.242\) ?
Exact Match (case sensitive):
\(\sqrt{ } 654.642\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 358.4. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
358.400
\(+296.242\)
654.642
47) Problem \#PRAHCNX "PRAHCNX - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(157.4+354.76 ?\)

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 512.16\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 157.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
157.40
\(+354.76\)
512.16

Type in 512.16
48) Problem \#PRAHCPM "PRAHCPM - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(9.883+8.245\) ?

\section*{Exact Match (case sensitive):}

, 18.128

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 18.128 .

\section*{49) Problem \#PRAHCRF "PRAHCRF - Addition of decimals - Tenths place"}

What is \(43.5+4.3\) ?
Exact Match (case sensitive):
\(\sqrt{ } 47.8\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
43.5
\(\begin{array}{r}+4.3 \\ \hline\end{array}\)
- When you add you get:
43.5
\(+4.3\)
47.8

Type in 47.8 .
50) Problem \#PRAHCNG "PRAHCNG - 194969 - Mika - Addition of decimals - Range . 001 and 100" What is \(97.568+64.577\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 162.145\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 162.145 .
51) Problem \#PRAHCMK "PRAHCMK - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(650.1+8.8\) ?
Exact Match (case sensitive):
\(\sqrt{ } 658.9\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\[
\begin{array}{r}
650.1 \\
+8.8 \\
\hline
\end{array}
\]
- When you add you get:
650.1
\(+8.8\)
658.9

\section*{52) Problem \#PRAHCMN "PRAHCMN - 194969 - Mika - Addition of decimals - Range . \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\)} What is \(67.64+67.475\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 135.115\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 67.64 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
67.640
\(+67.475\)
135.115

Type in 135.115 .

\section*{53) Problem \#PRAHCM6 "PRAHCM6 - Addition of decimals - Tenths place"}

What is \(55.3+1.3\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
55.3
\(+1.3\)

Type in 56.6.
54) Problem \#PRAHCQ6 "PRAHCQ6 - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(258.48+33.82\) ?

\section*{Exact Match (case sensitive):}
292.3

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
258.48 \(+33.82\)
- When you add you get:
258.48
\(+33.82\)
292.3

Type in 292.3.
55) Problem \#PRAHCNR "PRAHCNR - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 " What is \(97.6+45.44\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 143.04\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 97.6 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
97.60
\(+45.44\)
143.04

Type in 143.04.

What is \(5.5+90.211\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 95.711\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 5.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
5.500
\(+90.211\)
95.711

Type in 95.711.
57) Problem \#PRAHCM8 "PRAHCM8 - Addition of decimals - Hundredths place"

What is \(18.95+18.49\) ?
Exact Match (case sensitive):
\(\sqrt{ } 37.44\)

- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
18.95
\(+18.49\)
- When you add you get:
18.95
\(+18.49\)
37.44

Type in 37.44.
58) Problem \#PRAHCPC "PRAHCPC - Addition of decimals - Tenths place + Thousandths place"

What is \(87.5+30.786\) ?
Exact Match (case sensitive):
118.286

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 87.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
87.500
\(+30.786\)
- When you add you get:
87.500
\(+30.786\)
118.286

Type in 118.286.

\section*{59) Problem \#PRAHCPK "PRAHCPK - 194969-Mika - Addition of decimals - Range . 001 and 100"}


\section*{Exact Match (case sensitive):}
14.326

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\(+6.114\)
- When you add you get:

Type in 14.326 .

\section*{60) Problem \#PRAHCKN "PRAHCKN - Addition of decimals - Tenths place + Thousandths place"}

What is \(2.3+669.415\) ?

\section*{Exact Match (case sensitive):}
671.715

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 2.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 671.715.
61) Problem \#PRAHCNQ "PRAHCNQ - 194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(18.8+77.88\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{96.68}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 18.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
18.80
\(+77.88\)
96.68

Type in 96.68.
62) Problem \#PRAHCPV "PRAHCPV - 195379 - Mika - Addition of decimals - Range "

What is \(30079+0.418526\) ?

\section*{Exact Match (case sensitive):}
30079.418526

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 30079 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
30079.000000
\(+0.418526\)
30079.418526

Type in 30079.418526.
63) Problem \#PRAHCMH "PRAHCMH - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100"

What is \(713.7+6.5\) ?

\section*{Exact Match (case sensitive):}
720.2

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
713.7
\(+6.5\)
- When you add you get:
713.7
\(+6.5\)
720.2

Type in 720.2.
64) Problem \#PRAHCN2 "PRAHCN2 - Addition of decimals - Tenths place"

What is \(1.5+4.5\) ?
Exact Match (case sensitive):
\(\sqrt{ } 6\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.

1.5
\(+4.5\)
- When you add you get:
1.5
\(+4.5\)
6

Type in 6.

What is \(49.82+1.341\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 51.161\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 49.82 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
49.820
\(+1.341\)
- When you add you get:
49.820
\(+1.341\)
51.161

Type in 51.161.

\section*{66) Problem \#PRAHCMZ "PRAHCMZ - Addition of decimals - Tenths place + Hundredths place"}

What is \(13.4+6.72\) ?

\section*{Exact Match (case sensitive):}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 13.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
13.40
\(+6.72\)
- When you add you get:
13.40
\(+6.72\)
20.12

Type in 20.12.
67) Problem \#PRAHCNN "PRAHCNN - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(437.735+13.843\) ?
Exact Match (case sensitive):
451.578

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\[
\begin{array}{r}
437.735 \\
+\quad 13.843 \\
\hline
\end{array}
\]
- When you add you get:
437.735
\(+13.843\)
451.578

Type in 451.578 .
68) Problem \#PRAHCQS "PRAHCQS - Addition of decimals - Hundredths place"

What is \(7.11+4.69\) ?

\section*{Exact Match (case sensitive):}
11.8

Hints:
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
7.11
\(+4.69\)
- When you add you get:
\(+4.69\)
11.8

Type in 11.8.
69) Problem \#PRAHCM4 "PRAHCM4 - Addition of decimals - Ones place + Tenths place"

What is \(1+6.7\) ?
Exact Match (case sensitive):
\(\sqrt{ } 7.7\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths to 1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
1.0
\(+6.7\)
7.7

Type in 7.7.
70) Problem \#PRAHCPF "PRAHCPF - 194969 - Mika - Addition of decimals - Range . 001 and \(\mathbf{1 0 0 "}\)

What is \(24.58+503.557\) ?

\section*{Exact Match (case sensitive):}

\subsection*{528.137}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 24.58 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

\subsection*{528.137}

Type in 528.137 .
71) Problem \#PRAHCPU "PRAHCPU - 195379-Mika - Addition of decimals - Range "

What is \(90967+0.666212\) ?

\section*{Exact Match (case sensitive):}
90967.666212

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 90967 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
90967.000000
\(+0.666212\)
- When you add you get:
90967.000000
\(+0.666212\)
90967.666212

Type in 90967.666212.
72) Problem \#PRAHCQX "PRAHCQX - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(6.44+377.253\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 383.693\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 6.44 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
6.440
\(+377.253\)
383.693

Type in 383.693 .

\section*{73) Problem \#PRAHCM9 "PRAHCM9 - Addition of decimals - Hundredths place"}

What is \(16.51+16.21\) ?
Exact Match (case sensitive):
\(\sqrt{ } 32.72\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
16.51
\(+16.21\)
- When you add you get:

16.51
\(+16.21\)
32.72

Type in 32.72 .

\section*{74) Problem \#PRAHCMP "PRAHCMP - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0}\) "} What is \(20.17+84.636\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 104.806\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 20.17. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
20.170
\(+84.636\)
104.806

Type in 104.806 .
75) Problem \#PRAHCKS "PRAHCKS - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\)

What is \(14.1+42.311\) ?
Exact Match (case sensitive):
\(\sqrt{ } 56.411\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 14.1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
14.100
\(+42.311\)
56.411

Type in 56.411.

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 48.017\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 19.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
19.500
\(+28.517\)
48.017

Type in 48.017 .
77) Problem \#PRAHCN5 "PRAHCN5 - 194969-Mika - Addition of decimals - Range . 001 and 100"

What is \(2.4+32.66\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 35.06\)

\section*{Hints:}

You must line up the decimal to do this.
- In this case we add 0 hundredths to 2.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
\(+32.66\)
- When you add you get:

Type in 35.06.
78) Problem \#PRAHCK8 "PRAHCK8 - Addition of decimals - Tenths place + Thousandths place"

What is \(1.4+4.372\) ?
Exact Match (case sensitive):
\(\sqrt{5.772}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 1.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
1.400
\(+4.372\)
5.772

79) Problem \#PRAHCK9 "PRAHCK9 - Addition of decimals - Tenths place + Thousandths place"

What is \(4.6+8.806\) ?
Exact Match (case sensitive):
\(\sqrt{13.406}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 4.6 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
13.406

Type in 13.406.

\section*{80) Problem \#PRAHCQM "PRAHCQM - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "} What is \(374.177+368.236\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 742.413\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
374.177
742.413

Type in 742.413 .
81) Problem \#PRAHCQQ "PRAHCQQ - Addition of decimals - Tenths place + Thousandths place" What is \(518.4+7.578\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{525.978}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 518.4. This does not change the value of the
number.
Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
518.400
\(+7.578\)
525.978

Type in 525.978 .
82) Problem \#PRAHCQ5 "PRAHCQ5-194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(400.3+4.72\) ?

\section*{Exact Match (case sensitive):}
405.02

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 400.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
400.30
\(+4.72\)
405.02

Type in 405.02.

\section*{Exact Match (ignore case):}
\(\sqrt{ } 119\)
\(\sqrt{ } 119.0\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 119
84) Problem \#PRAHCP5 "PRAHCP5-194969 - Mika - Addition of decimals - Range . \(\mathbf{0 0 1}\) and 100 "

What is \(3.62+7.781\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 11.401\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 3.62 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 11.401.
85) Problem \#PRAHCMF "PRAHCMF - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(69.3+390.51\) ?
Exact Match (case sensitive):
, 459.81

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 69.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
\[
69.30
\]
\(+390.51\)
459.81

Type in 459.81.

What is \(3.232+93.854\) ?
Exact Match (case sensitive):
\(\sqrt{ } 97.086\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 97.086 .
87) Problem \#PRAHCM7 "PRAHCM7 - Addition of decimals - Tenths place"

What is \(55.1+6.0\) ?
Exact Match (case sensitive):
\(\sqrt{61.1}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
55.1
\(+6.0\)
- When you add you get:
55.1
\(+6.0\)
61.1

Type in 61.1.
88) Problem \#PRAHCQA "PRAHCQA - 194969-Mika - Addition of decimals - Range . 001 and 100 "

What is \(340.808+9.312\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 350.12\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
340.808
\(\begin{array}{r}+9.312 \\ \hline\end{array}\)
350.12

Type in 350.12 .

\section*{89) Problem \#PRAHCPG "PRAHCPG - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)}

What is \(8.45+471.86\) ?
Exact Match (case sensitive):
\(\sqrt{ } 480.31\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
\[
8.45
\]
480.31

Type in 480.31.
90) Problem \#PRAHCPE "PRAHCPE - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100"

What is \(20.13+332.571\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{352.701}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 20.13. This does not change the value of the
number.
Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
20.130
\(+332.571\)
352.701

Type in 352.701.
91) Problem \#PRAHCKR "PRAHCKR - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 "

What is \(41.3+29.502\) ?
Exact Match (case sensitive):
70.802

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 41.3 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
41.300
\(+29.502\)
70.802

Type in 70.802 .

What is \(214.808+406.582\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 621.39\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
214.808
\(+406.582\)
621.39

Type in 621.39.
93) Problem \#PRAHCPJ "PRAHCPJ - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)

What is \(3.81+173.34\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 177.15\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
3.81
\(+173.34\)
177.15
94) Problem \#PRAHCN9 "PRAHCN9-194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(41.51+4.185\) ?

\section*{Exact Match (case sensitive):}
45.695

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 41.51 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
41.510
\(+4.185\)
45.695

Type in 45.695 .

\section*{95) Problem \#PRAHCKX "PRAHCKX - 194969-Mika - Addition of decimals - Range . 001 and 100 "}

What is \(14.4+44.618\) ?

Exact Match (case sensitive):
59.018

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 14.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 59.018.
96) Problem \#PRAHCRA "PRAHCRA - 194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(323.63+322.161\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 645.791\)
Hints:
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 323.63 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
323.630
\(+322.161\)

Type in 645.791.
97) Problem \#PRAHCNT "PRAHCNT - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\) What is \(188.1+62.5\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 250.6\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
188.1
\(+62.5\)
250.6

Type in 250.6.
98) Problem \#PRAHCNC "PRAHCNC - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(9.53+56.682\) ?
Exact Match (case sensitive):
\(\sqrt{ } 66.212\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 9.53 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.

Type in 66.212.
99) Problem \#PRAHCKU "PRAHCKU - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(35.1+22.377\) ?
Exact Match (case sensitive):
57.477

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 35.1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
35.100
\(+22.377\)
57.477

Type in 57.477.
100) Problem \#PRAHCQT "PRAHCQT - Addition of decimals - Hundredths place"

What is \(4.30+5.68 ?\)
Exact Match (case sensitive):
」 9.98

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.

- Line up the decimal like this and add, keeping the decimal in place.
4.3
\(+5.68\)
- When you add you get:
4.3
\(+5.68\)
9.98

Type in 9.98.

\section*{Exact Match (case sensitive):}
\(\sqrt{31938.421686}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 31938 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
31938.000000
\(+0.421686\)
31938.421686

Type in 31938.421686.
102) Problem \#PRAHCNF "PRAHCNF - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 "

What is \(48.204+84.672\) ?

\section*{Exact Match (case sensitive):}

\subsection*{132.876}

\section*{Hints:}

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
48.204
\(+84.672\)
132.876

Type in 132.876 .
103) Problem \#PRAHCQN "PRAHCQN - 194969-Mika - Addition of decimals - Range . 001 and 100 "

What is \(480.677+247.322\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 727.999\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\[
\begin{array}{r}
480.677 \\
+\quad 247.322 \\
\hline
\end{array}
\]
- When you add you get:
\(+247.322\)
727.999

Type in 727.999.

\section*{104) Problem \#PRAHCM3 "PRAHCM3 - Addition of decimals - Ones place + Tenths place"}

What is \(5+3.8\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths to 5 . This does not change the value of the number. Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 8.8.
105) Problem \#PRAHCPZ "PRAHCPZ - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(432.61+34.218\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 466.828\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 432.61 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
432.610
\(+34.218\)
466.828

Type in 466.828 .
106) Problem \#PRAHCMV "PRAHCMV - 194969 - Mika-Addition of décimals - Range .001 and 100 "

What is \(692.5+36.45\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 728.95\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 692.5 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
692.50
\(+36.45\)
728.95

Type in 728.95.
107) Problem \#PRAHCP9 "PRAHCP9-194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100"

What is \(1.1+967.52\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 968.62\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 1.1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 968.62.
108) Problem \#PRAHCNK "PRAHCNK - 194969 - Mika - Addition of decimals - Range .001 and 100" What is \(723.74+5.715\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{729.455}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 723.74 . This does not change the value of the
number.
Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
723.740
\(+5.715\)
729.455

Type in 729.455.
109) Problem \#PRAHCQC "PRAHCQC - 194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(290.434+1.876\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{292.31}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
290.434
\(+1.876\)
292.31

Type in 292.31.
110) Problem \#PRAHCMR "PRAHCMR - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(272.74+179.48\) ?
Exact Match (case sensitive):
\(\sqrt{ } 452.22\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
272.74
\(+179.48\)
452.22

Type in 452.22.

\section*{111) Problem \#PRAHCKK "PRAHCKK - Addition of decimals - Tenths place + Thousandths place"}

What is \(6.1+453.701\) ?

\section*{Exact Match (case sensitive):}
459.801

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 6.1 . This does not change the value of the
 number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 459.801 .
112) Problem \#PRAHCQ8 "PRAHCQ8 - 194969-Mika - Addition of decimals - Range . 001 and 100"

What is \(273.81+55.22\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{329.03}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
273.81
\(+55.22\)
- When you add you get:
273.81
\(+55.22\)
329.03

Type in 329.03.

\section*{113) Problem \#PRAHCMW "PRAHCMW - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "}

What is \(749.4+68.67\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 749.4. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
818.07

Type in 818.07.

\section*{114) Problem \#PRAHCQW "PRAHCQW - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\)} What is \(3.63+143.182\) ?

\section*{Exact Match (case sensitive):}
146.812

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 3.63 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
3.630
\(+143.182\)
146.812
115) Problem \#PRAHCMG "PRAHCMG - 194969-Mika - Addition of decimals - Range . 001 and 100"

What is \(13.8+396.76\) ?

\section*{Exact Match (case sensitive):}
410.56

Hints:
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 13.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
13.80
\(+396.76\)
410.56

Type in 410.56 .

\section*{116) Problem \#PRAHCME "PRAHCME - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "}

What is \(34.6+279.82\) ?
Exact Match (case sensitive):
\(\sqrt{ } 314.42\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 34.6. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 314.42.
117) Problem \#PRAHCP7 "PRAHCP7-194969 - Mika - Addition of decimals - Range . 001 and 100"

What is \(2.8+394.34\) ?
Exact Match (case sensitive):
\(\sqrt{ } 397.14\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 2.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
\[
2.80
\]
\(+394.34\)
397.14

Type in 397.14.

\section*{118) Problem \#PRAHCNA "PRAHCNA - Addition of decimals - Hundredths place"}

What is \(17.45+17.23\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 34.68\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
\(\begin{array}{r}+17.23 \\ \hline\end{array}\)
- When you add you get:
17.45
\(+17.23\) 34.68

Type in 34.68.

\section*{Exact Match (case sensitive):}

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place. \(+3.241\)
- When you add you get:
\[
3.458
\]
\(+3.241\)
6.699

Type in 6.699.
120) Problem \#PRAHCNJ "PRAHCNJ - 194969 - Mika - Addition of decimals - Range . 001 and 100 "

What is \(127.77+1.183\) ?

\section*{Exact Match (case sensitive):}
128.953

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 127.77 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
128.953
121) Problem \#PRAHCRE "PRAHCRE - Addition of decimals - Tenths place + Thousandths place"

What is \(66.1+727.437 ?\)

\section*{Exact Match (case sensitive):}
793.537

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 66.1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
66.100
\(+727.437\)
793.537

Type in 793.537.

\section*{122) Problem \#PRAHCQV "PRAHCQV - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 "}

What is \(8.32+488.751\) ?

\(\sqrt{ } 497.071\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 8.32 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 497.071.
123) Problem \#PRAHCQB "PRAHCQB - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 "

What is \(230.144+2.103\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{232.247}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\(+2.103\)
- When you add you get:
230.144
\(+2.103\)
232.247

\section*{124) Problem \#PRAHCMY "PRAHCMY - Addition of decimals - Tenths place + Hundredths place"}

What is \(12.1+5.27\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 17.37\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 12.1 . This does not change the value of the number. Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
12.10
\(+5.27\)
17.37

Type in 17.37.

\section*{125) Problem \#PRAHCMS "PRAHCMS - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100"}

What is \(259.63+267.22\) ?
Exact Match (case sensitive):
, 526.85

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\[
259.63
\]
\[
+267.22
\]
- When you add you get:
259.63
\(+267.22\)
526.85

Type in 526.85 .
126) Problem \#PRAHCMU "PRAHCMU - 194969 - Mika - Addition of decimals - Range .001 and 100"

What is \(891.3+82.73\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 974.03\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 891.3. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
891.30
\(+82.73\)
974.03

Type in 974.03.

\section*{127) Problem \#PRAHCN8 "PRAHCN8 - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\)}

What is \(21.46+6.174\) ?
Exact Match (case sensitive):
\(\sqrt{ } 27.634\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 21.46 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 27.634.
128) Problem \#PRAHCQD "PRAHCQD - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and \(\mathbf{1 0 0 "}\)

What is \(8.388+24.624\) ?
Exact Match (case sensitive):
\(\sqrt{ } 33.012\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
\[
8.388
\]
\(+24.624\)
33.012

Type in 33.012.
129) Problem \#PRAHCQY "PRAHCQY - Addition of decimals - Hundredths place"

What is \(36.25+3.22\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 39.47\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
36.25
 3.22
- When you add you get:
36.25
\(+3.22\)
39.47

Type in 39.47.

\section*{130) Problem \#PRAHCK5 "PRAHCK5 - Addition of decimals - Tenths place"}

What is \(43.1+97.2\) ?

\section*{Exact Match (case sensitive):}
140.3

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
43.1
\(\begin{array}{r}+97.2 \\ \hline\end{array}\)
- When you add you get:
43.1
\(\begin{array}{r}97.2 \\ \hline 14.3\end{array}\)
140.3

Type in 140.3.

\section*{131) Problem \#PRAHCM5 "PRAHCM5 - Addition of decimals - Tenths place"}

What is \(60.2+2.3\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{62.5}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
60.2
\(+2.3\)
- When you add you get:
60.2
\(\begin{array}{r}+2.3 \\ \hline 62.5\end{array}\)
62.5
132) Problem \#PRAHCRC "PRAHCRC - Addition of decimals - Tenths place + Thousandths place" What is \(15.1+611.108\) ?
Exact Match (case sensitive):
」 626.208

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 15.1 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
15.100
\(+611.108\)
626.208

Type in 626.208.
133) Problem \#PRAHCN3 "PRAHCN3 - Addition of decimals - Tenths place"

What is \(8.5+7.0\) ?

\section*{Exact Match (case sensitive):}
https:///4/ww.ast5tments.org/build/print/sequence/803905?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
8.5
\(+7.0\)
- When you add you get:

Type in 15.5.

\section*{134) Problem \#PRAHCP3 "PRAHCP3 - 194969 - Mika - Addition of decimals - Range . 001 and \(\mathbf{1 0 0}\) "}

What is \(262.68+20.777\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{283.457}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 262.68 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
262.680
\(+20.777\)
283.457
135) Problem \#PRAHCRG "PRAHCRG - Addition of decimals - Tenths place"

What is \(97.3+1.1\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{\sqrt{2}} 9\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.

\section*{97.3}
\(+1.1\)
- When you add you get:
97.3
\(+1.1\)
98.4

Type in 98.4.

\section*{136) Problem \#PRAHCK7 "PRAHCK7 - Addition of decimals - Tenths place"}

What is \(18.3+81.6\) ?

\section*{Exact Match (case sensitive):}

ノ 99.9

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
18.3
\(\begin{array}{r}+81.6 \\ \hline\end{array}\)
- When you add you get:

18.3
\(+81.6\)
99.9

Type in 99.9.

\section*{137) Problem \#PRAHCNW "PRAHCNW - 194969-Mika - Addition of decimals - Range . 001 and 100"}

What is \(203.2+200.61\) ?

\section*{Exact Match (case sensitive):}
403.81

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 203.2. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
203.20
\(+200.61\)
403.81

Type in 403.81.

\section*{138) Problem \#PRAHCNZ "PRAHCNZ - Addition of decimals - Tenths place"}

What is \(6.1+2.5\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 8\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.

6.1
\(+2.5\)
- When you add you get:
6.1
\(+2.5\) 8.6

Type in 8.6.

What is \(3.17+167.86\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 171.03\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
3.17
\(+167.86\)
171.03

Type in 171.03.
140) Problem \#PRAHCQU "PRAHCQU - Addition of decimals - Hundredths place"

What is \(7.16+6.12\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 13.28\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
7.16
\(+6.12\)
- When you add you get:
\(+6.12\)
13.28

Type in 13.28.
141) Problem \#PRAHCPY "PRAHCPY - 195379-Mika - Addition of decimals - Range "

What is \(93198+0.546825\) ?

\section*{Exact Match (case sensitive):}
, 93198.546825

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 93198 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
93198.000000
\(+0.546825\)
93198.546825

Type in 93198.546825.
142) Problem \#PRAHCNE "PRAHCNE - 194969 - Mika - Addition of decimals - Range .001 and 100" What is \(44.453+97.885\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\(+97.885\)
- When you add you get:

Type in 142.338 .

\section*{143) Problem \#PRAHCN6 "PRAHCN6 - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\)} What is \(8.1+53.55\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{61.65}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 8.1. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
8.10
\(+53.55\)
61.65

Type in 61.65.
144) Problem \#PRAHCPS "PRAHCPS - 195379 - Mika - Addition of decimals - Range "

What is \(20315+0.605217\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{20315.605217}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 tenths, 0 hundredths, 0 thousandths, 0 ten-thousandths, 0 hundred-thousandths and 0 millionths to 20315. This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
20315.000000
\(+0.605217\)
20315.605217

Type in 20315.605217.
145) Problem \#PRAHCKW "PRAHCKW - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\) What is \(26.4+16.776\) ?
Exact Match (case sensitive):
\(\sqrt{ } 43.176\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 26.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 43.176 .
146) Problem \#PRAHCNS "PRAHCNS - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100 " What is \(10.4+41.44\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 51.84\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths to 10.4 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
10.40
\(+41.44\)
51.84

Type in 51.84 .
147) Problem \#PRAHCP2 "PRAHCP2-194969 - Mika - Addition of decimals - Range . \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0}\) " What is \(306.87+78.802\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{385.672}\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 thousandths to 306.87 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
306.870
\(\begin{array}{r}78.802 \\ \hline\end{array}\)
385.672

Type in 385.672 .
148) Problem \#PRAHCKH "PRAHCKH - Addition of decimals - Tenths place + Thousandths place" What is \(453.8+38.643\) ?

\section*{Exact Match (case sensitive):}
492.443

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 453.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
453.800
\(+38.643\)
- When you add you get:
453.800
\(+38.643\)
492.443

Type in 492.443.
149) Problem \#PRAHCPA "PRAHCPA - Addition of decimals - Tenths place + Thousandths place" What is \(89.8+78.327\) ?

\section*{Exact Match (case sensitive):}
https:///4/w.ast688edtzZrg/build/print/sequence/803905?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 89.8 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:

Type in 168.127 .

\section*{150) Problem \#PRAHCP6 "PRAHCP6 - 194969 - Mika - Addition of decimals - Range . \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0}\) "}

What is \(1.63+2.607\) ?

\section*{Exact Match (case sensitive):}
4.237

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 1.63 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
1.630
\(+2.607\)
4.237

Type in 4.237.
151) Problem \#PRAHCKV "PRAHCKV - 194969 - Mika - Addition of decimals - Range \(\mathbf{. 0 0 1}\) and 100" What is \(20.6+22.285\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 42.885\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 20.6 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
20.600
\(+22.285\)
42.885

Type in 42.885 .

\section*{152) Problem \#PRAHCRH "PRAHCRH - Addition of decimals - Tenths place"}

What is \(31.4+2.4\) ?

\section*{Exact Match (case sensitive):}


\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- Line up the decimal like this and add, keeping the decimal in place.
31.4
\(+2.4\)
http: - When you add you get:
31.4
\(+2.4\)
33.8

Type in 33.8.
153) Problem \#PRAHCMM "PRAHCMM - 194969 - Mika - Addition of decimals - Range \(\mathbf{0 0 1}\) and 100 "

What is \(78.78+65.356\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 144.136\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 78.78 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
78.780
\(+65.356\)
144.136

Type in 144.136 .
154) Problem \#PRAHCNM "PRAHCNM - 194969 - Mika - Addition of decimals - Range . \(\mathbf{0 0 1}\) and \(\mathbf{1 0 0 "}\) What is \(469.605+80.487\) ?

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 550.092\)

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we line up the decimal like this and add, keeping the decimal in place.
\[
\begin{array}{r}
469.605 \\
+80.487 \\
\hline
\end{array}
\]
- When you add you get:
469.605
\(+80.487\)
550.092

Type in 550.092.

What is \(2.35+63.403\) ?

\section*{Exact Match (case sensitive):}
\[
65.753
\]

\section*{Hints:}
- When adding you need to add the ones with the ones. The tenths with the tenths. AND SO ON.

You must line up the decimal to do this.
- In this case we add 0 hundredths and 0 thousandths to 2.35 . This does not change the value of the number.

Line up the decimal like this and add, keeping the decimal in place.
- When you add you get:
2.350
\(+63.403\)
65.753

Type in 65.753.

\section*{Problem Set "Adding or Subtracting Negative Decimals 7.NS.A.1d" id:[PSAGGM]}

\section*{Select All}
1) Problem \#PRAH4ZP "PRAH4ZP - Subtraction - one positive, one negative number" What is -274.11-375.42?

\section*{Algebraic Expression:}
\(\sqrt{ }-649.53\)
-649.5

\section*{Hints:}

\section*{PSAGGM 1.1}


One way to think about subtracting is to change it to adding the opposite:
 One example: \(1-(-2)=1+2=3\) and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite -274.11-375.42 as \(-274.11+-375.42\).

\section*{PSAGGM 1.2}


Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
-274.11
\(+-375.42\)
-649.53
Type in -649.53.
2) Problem \#PRAH4YF "PRAH4YF - Subtraction - two negative numbers"

What is -217.63-(-262.26)?

\section*{Algebraic Expression:}
 44.63
44.6

Hints:

\section*{PSAGGM 2.1}

-
Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-217.63+262.26\)
How would you add a positive and a negative number?

\section*{PSAGGM 2.2}

.
When you add numbers of opposite signs, you just subtract their absolute values.
The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-217.63+262.26 ?\)
(Remember, this is still the same as -217.63-(-262.26))

\section*{PSAGGM 2.3}

\(-217.63-(-262.26)=-217.63+262.26=44.63\). Type in 44.63.
3) Problem \#PRAH4YG "PRAH4YG - Subtraction - two negative numbers" What is -253.55-(-485.89)?

\section*{Algebraic Expression:}
\(\sqrt{ } 232.34\)
232.3

\section*{Hints:}

PSAGGM 3.1

Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-253.55+485.89\)
How would you add a positive and a negative number?

\section*{PSAGGM 3.2}


When you add numbers of opposite signs, you just subtract their absolute values.
The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-253.55+485.89\) ?
(Remember, this is still the same as -253.55-(-485.89))

\(-253.55-(-485.89)=-253.55+485.89=232.34\). Type in 232.34.
4) Problem \#PRABE83 "PRABE83 - Addition - Decimals: carry over of tenths"

What is \(9.1+-7.9\) ?

\section*{Algebraic Expression:}
1.2

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(9.1+-7.9\) is the same as \(9.1-7.9\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.1-0.9\) ?
Algebraic Expression:
\(\sqrt{ }-0.8\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 1.
- \(1-9=-8\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.1-0.9=-0.8\)
Type in -0.8 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.8 .
Now subtract the whole numbers of the two decimals.
What is 9-7?

\section*{Algebraic Expression:}
```

\

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\section*{Hints:}
- Start at 9 and count down 7
- \(9-7=2\)

Type in 2.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.8 ,
and the difference of the whole numbers is 2 . Now try the original problem.

What is 9.1-7.9?

\section*{Algebraic Expression:}
1.2

\section*{Hints:}
- The difference of the tenths digits is -0.8 , and the difference of the whole numbers is 2 .
- Add the above two differences to get the result.
- \(16-1=1.2\)

Thus,
\(9.1-7.9=1.2\)
Type in 1.2.
5) Problem \#PRABE84 "PRABE84 - Addition - Decimals: carry over of tenths"

What is \(9.2+-7.8\) ?
Algebraic Expression:
\(\sqrt{ } 1.4\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(9.2+-7.8\) is the same as \(9.2-7.8\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.2-0.8\) ?

\section*{Algebraic Expression:}
- -0.6

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 8 from 2.
- \(2-8=-6\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.2-0.8=-0.6\)
Type in -0.6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6.
Now subtract the whole numbers of the two decimals.

What is 9-7?
Algebraic Expression:
\(\sqrt{ } 2\)

\section*{Hints:}
- \(\quad\) Start at 9 and count down 7
- \(9-7=2\)

Type in 2.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 ,
and the difference of the whole numbers is 2 .

Now try the original problem.

What is 9.2-7.8?
Algebraic Expression:
1.4

\section*{Hints:}
- The difference of the tenths digits is -0.6 , and the difference of the whole numbers is 2.
- Add the above two differences to get the result.
- \(16-1=1.4\)

Thus,
\(9.2-7.8=1.4\)
Type in 1.4.
6) Problem \#PRAH4Y3 "PRAH4Y3 - Addition - two negative numbers"

What is \(-60.838+-415.818\) ?

\section*{Algebraic Expression:}
\(\sqrt{-476.656}\)
-476.7

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-60.838+-415.818\) ?
- \(-60.838+-415.818=-476.656\). Type in -476.656 .

\section*{7) Problem \#PRAH4Y2 "PRAH4Y2 - Addition - two negative numbers"}

What is \(-187.882+-462.119\) ?

\section*{Algebraic Expression:}
-650.001
-650.0

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-187.882+-462.119\) ?
- \(-187.882+-462.119=-650.001\). Type in -650.001.
8) Problem \#PRAH4ZQ "PRAH4ZQ - Subtraction - one positive, one negative number"

What is 432.62 - (-137.49)?

\section*{Algebraic Expression:}
570.11
570.1

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 432.62 - (-137.49) as \(432.62+137.49\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
432.62
\(+137.49\)
570.11

Type in 570.11.

\section*{9) Problem \#PRAH4Z9 "PRAH4Z9 - Subtraction - one positive, one negative number"} What is -131.77-331.77?

\section*{Algebraic Expression:}
-463.54
\(-463.5\)

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite -131.77-331.77 as -131.77+-331.77.
- Since both numbers are negative you are just adding a distance to the left with another distance to the
 left so just add the values.
-131.77
\(+-331.77\)
-463.54
Type in -463.54.
10) Problem \#PRAH4Z6 "PRAH4Z6 - Subtraction - one positive, one negative number"

What is \(249.48-(-392.44)\) ?

\section*{Algebraic Expression:}
641.9

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 249.48 - (-392.44) as \(249.48+392.44\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
249.48
\(+392.44\)
641.92

Type in 641.92.

\section*{11) Problem \#PRAH4ZZ "PRAH4ZZ - Subtraction - one positive, one negative number"}

What is -56.36-319.2 ?

\section*{Algebraic Expression: \\ -375.56 \\ 」 -375.6}

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)

So you can rewrite -56.36-319.2 as \(-56.36+-319.2\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
-56.36
\(+-319.2\)
-375.56
Type in -375.56.
- 1.8

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(1.1+-2.9\) is the same as \(1.1-2.9\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.1-0.9\) ?
Algebraic Expression:
\(\sqrt{ }-0.8\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 1.
- \(1-9=-8\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.1-0.9=-0.8\)
Type in -0.8 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.8 .
Now subtract the whole numbers of the two decimals.
What is 1-2?
Algebraic Expression:
\(\sqrt{ }-1\)

\section*{Hints:}
- Start at 1 and count down 2
- \(1-2=-1\)

Type in -1.

You know the difference of the tenths digits is -0.8 ,
and the difference of the whole numbers is -1 .
Now try the original problem.
What is 1.1-2.9?

\section*{Algebraic Expression:}
\[
\sqrt{ }-1.8
\]

\section*{Hints:}
- The difference of the tenths digits is -0.8 , and the difference of the whole numbers is -1 .
- Add the above two differences to get the result.
- \(3-1=-1.8\)

Thus,
\(1.1-2.9=-1.8\)
Type in -1.8.

\section*{13) Problem \#PRAH4ZV "PRAH4ZV - Subtraction - one positive, one negative number"}

What is 220.56-(-298.71)?

\section*{Algebraic Expression:}
519.27
519.3

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 220.56 - (-298.71) as \(220.56+298.71\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
220.56
\(+298.71\)
519.27

Type in 519.27.

\section*{14) Problem \#PRAH4Z2 "PRAH4Z2 - Subtraction - one positive, one negative number"}

What is -279.33-136.6 ?

\section*{Algebraic Expression:}
-415.93
\(\sqrt{ }-415.9\)

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite -279.33-136.6 as \(-279.33+-136.6\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
\(+-136.6\)

Type in -415.93.
15) Problem \#PRABE9S "PRABE9S - Addition - Decimals: carry over of tenths"

What is \(7.3+-6.9\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.4\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(7.3+-6.9\) is the same as \(7.3-6.9\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is 0.3-0.9?

\section*{Algebraic Expression:}
\(\sqrt{ }-0.6\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 3.
- \(3-9=-6\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.3-0.9=-0.6\)
Type in -0.6 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 .
Now subtract the whole numbers of the two decimals.

\section*{What is 7-6?}

\section*{Algebraic Expression:}
\(\sqrt{ } 1\)

Hints:
- Start at 7 and count down 6
- 7-6 = 1

Type in 1.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 ,
and the difference of the whole numbers is 1 .
Now try the original problem.
What is \(7.3-6.9\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.4\)

\section*{Hints:}
- The difference of the tenths digits is -0.6 , and the difference of the whole numbers is 1 .
- Add the above two differences to get the result.
- 13-1.2 = 0.4

Thus,
\(7.3-6.9=0.4\)
Type in 0.4.

\section*{16) Problem \#PRAH4ZC "PRAH4ZC - Addition - two negative numbers"}

What is \(-113.353+-479.091\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-592.444
\(\sqrt{\sqrt{2}} \mathbf{- 5 9 2 . 4}\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-113.353+-479.091\) ?
- \(-113.353+-479.091=-592.444\). Type in -592.444 .

\section*{17) Problem \#PRAH4YP "PRAH4YP - Subtraction - two negative numbers"}

What is -466.73-(-493.94)?

\section*{Algebraic Expression:}
27.21
27.2

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-466.73+493.94\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).

So what is \(-466.73+493.94\) ?
(Remember, this is still the same as -466.73-(-493.94))
- \(-466.73-(-493.94)=-466.73+493.94=27.21\). Type in 27.21.
18) Problem \#PRAH4ZY "PRAH4ZY - Subtraction - one positive, one negative number"

What is \(48.18-(-184.6)\) ?

\section*{Algebraic Expression:}
\(\sqrt{232.78}\)
232.8

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 48.18 - (-184.6) as \(48.18+184.6\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
48.18
\begin{tabular}{l}
+184.6 \\
\hline 232.78
\end{tabular}
232.78

Type in 232.78.
19) Problem \#PRAH4ZF "PRAH4ZF - Addition - two negative numbers"

What is \(-438.376+-191.175\) ?

\section*{Algebraic Expression:}
-629.551
-629.6

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-438.376+-191.175\) ?
- \(-438.376+-191.175=-629.551\). Type in -629.551 .

\section*{Algebraic Expression:}

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(10.5+-6.5\) is the same as \(10.5-6.5\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.5-0.5\) ?
Algebraic Expression:
\(\sqrt{ } 0\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 5 from 5 .
- 5-5 = 0

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.5-0.5=0\)

Type in 0 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0 .
Now subtract the whole numbers of the two decimals.
What is \(10-6\) ?

\section*{Algebraic Expression:}
\(\sqrt{4}\)

\section*{Hints:}
- Start at 10 and count down 6
- 10-6 = 4

Type in 4.

You know the difference of the tenths digits is 0 , and the difference of the whole numbers is 4 .

Now try the original problem.
What is 10.5-6.5?
Algebraic Expression:
\(\sqrt{4}\)

\section*{Hints:}
- The difference of the tenths digits is 0 , and the difference of the whole numbers is 4 .
- Add the above two differences to get the result.
- 16-1 = 4

Thus,
\(10.5-6.5=4\)
Type in 4.
21) Problem \#PRAH4Z7 "PRAH4Z7 - Subtraction - one positive, one negative number"

What is \(338.4-(-123.15)\) ?

\section*{Algebraic Expression:}
461.55
461.6

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 338.4 - (-123.15) as \(338.4+123.15\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
338.4
\(+123.15\)
461.55

Type in 461.55.

\section*{22) Problem \#PRAH4Y7 "PRAH4Y7 - Addition - two negative numbers"}

What is \(-43.013+-462.555\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-505.568
-505.6

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-43.013+-462.555\) ?
- \(-43.013+-462.555=-505.568\). Type in -505.568 .

\section*{23) Problem \#PRABE88 "PRABE88 - Addition - Decimals: carry over of tenths"}

What is \(4.6+-7.6\) ?
Algebraic Expression:
\(\sqrt{ }-3\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(4.6+-7.6\) is the same as \(4.6-7.6\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.6-0.6\) ?
Algebraic Expression:
\(\sqrt{ } 0\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 6 from 6.
- 6-6 = 0

Now, put the decimal points back.
- When we put the decimal points back we get,
0.6-0.6 = 0

Type in 0 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0 .
Now subtract the whole numbers of the two decimals.
What is 4-7?
Algebraic Expression:
\(\sqrt{-3}\)
Hints:
- Start at 4 and count down 7
- \(4-7=-3\)

Type in -3.

You know the difference of the tenths digits is 0 ,
and the difference of the whole numbers is -3 .
Now try the original problem.
What is 4.6-7.6?

\section*{Algebraic Expression:}
\(\sqrt{-3}\)

\section*{Hints:}
- The difference of the tenths digits is 0 , and the difference of the whole numbers is -3 .
- Add the above two differences to get the result.
- \(11-1.2=-3\)

Thus,
\(4.6-7.6=-3\)
Type in -3.

\section*{24) Problem \#PRAH4YZ "PRAH4YZ - Subtraction - two negative numbers"}

What is -27.29-(-377.67)?

\section*{Algebraic Expression:}
350.38
350.4

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-27.29+377.67\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-27.29+377.67\) ?
(Remember, this is still the same as -27.29-(-377.67))
- \(-27.29-(-377.67)=-27.29+377.67=350.38\). Type in 350.38 .
25) Problem \#PRABE86 "PRABE86 - Addition - Decimals: carry over of tenths"

What is \(2.4+-6.7\) ?
Algebraic Expression:
\(-4.3\)
https://wSccaffold isis.org/build/print/sequence/809733?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false \(^{\text {and }}\)
First, you can simplify this problem, by simplifying the signs.
\(2.4+-6.7\) is the same as \(2.4-6.7\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.4-0.7\) ?

\section*{Algebraic Expression:}
\(\sqrt{-0.3}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 7 from 4.
- \(4-7=-3\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.4-0.7=-0.3\)
Type in -0.3 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.3 .
Now subtract the whole numbers of the two decimals.
What is 2-6?
Algebraic Expression:
\(\sqrt{ }-4\)

\section*{Hints:}
- Start at 2 and count down 6
- \(2-6=-4\)

Type in -4 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.3 , and the difference of the whole numbers is -4 .

Now try the original problem.
What is 2.4-6.7?

\section*{Algebraic Expression:}
\[
\sqrt{ }-4.3
\]

\section*{Hints:}
- The difference of the tenths digits is -0.3 , and the difference of the whole numbers is -4 .
- Add the above two differences to get the result.
- 8-1.1 = -4.3

Thus,
\(2.4-6.7=-4.3\)
Type in -4.3.
26) Problem \#PRAH4ZJ "PRAH4ZJ - Addition - two negative numbers"

What is \(-28.032+-475.496\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-503.528
-503.5

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-28.032+-475.496\) ?
- \(-28.032+-475.496=-503.528\). Type in -503.528 .
27) Problem \#PRABE9Q "PRABE9Q - Addition - Decimals: carry over of tenths"

What is \(2.1+-5.9\) ?

\section*{Algebraic Expression:}
-3.8

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(2.1+-5.9\) is the same as \(2.1-5.9\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.1-0.9\) ?
Algebraic Expression:
\(\sqrt{-0.8}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 1.
- \(1-9=-8\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.1-0.9=-0.8\)

Type in -0.8.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.8 .
Now subtract the whole numbers of the two decimals.

What is 2-5?
Algebraic Expression:
\(\sqrt{ }-3\)

\section*{Hints:}

- \(2-5=-3\)

Type in -3.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.8 ,
and the difference of the whole numbers is -3 .
Now try the original problem.
What is \(2.1-5.9\) ?

\section*{Algebraic Expression:}
\[
\sqrt{-3.8}
\]

\section*{Hints:}
- The difference of the tenths digits is -0.8 ,
and the difference of the whole numbers is -3 .
- Add the above two differences to get the result.
- \(7-1=-3.8\)

Thus,
\(2.1-5.9=-3.8\)
Type in -3.8.

\section*{28) Problem \#PRABE85 "PRABE85 - Addition - Decimals: carry over of tenths"}

What is \(3.3+-9.8\) ?
Algebraic Expression:
\(\sqrt{-6.5}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(3.3+-9.8\) is the same as \(3.3-9.8\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.3-0.8\) ?

\section*{Algebraic Expression:}
\(\sqrt{-0.5}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 8 from 3.
- \(3-8=-5\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.3-0.8=-0.5\)
Type in -0.5 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.5 .

\section*{What is 3-9?}

Algebraic Expression:
\(\sqrt{ }-6\)

\section*{Hints:}
- Start at 3 and count down 9
- \(3-9=-6\)

Type in -6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.5 , and the difference of the whole numbers is -6 .

Now try the original problem.

What is 3.3-9.8?

\section*{Algebraic Expression:}
\(\sqrt{\text { - } 6.5}\)

\section*{Hints:}
- The difference of the tenths digits is -0.5 ,
and the difference of the whole numbers is -6 .
- Add the above two differences to get the result.
- \(12-1.1=-6.5\)

Thus,
\(3.3-9.8=-6.5\)
Type in -6.5.

\section*{29) Problem \#PRAH4ZS "PRAH4ZS - Subtraction - one positive, one negative number"}

What is -206.41-348.03?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-554.44
\(\sqrt{ }-554.4\)

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite \(-206.41-348.03\) as \(-206.41+-348.03\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
\(\begin{array}{r}-348.03 \\ \hline-554\end{array}\)
-554.44
Type in -554.44.
30) Problem \#PRAH4Z4 "PRAH4Z4 - Subtraction - one positive, one negative number"

What is -451.24-25.03 ?

\section*{Algebraic Expression:}
\(\sqrt{ }-476.27\)

」 -476.3

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite -451.24-25.03 as -451.24 + -25.03.
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
-451.24
\(+-25.03\)
-476.27
Type in -476.27.

\section*{31) Problem \#PRABE9N "PRABE9N - Addition - Decimals: carry over of tenths"}

\section*{What is \(5.9+-2.6\) ?}

\section*{Algebraic Expression:}
\(\sqrt{ } 3.3\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(5.9+-2.6\) is the same as \(5.9-2.6\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is 0.9-0.6?

\section*{Algebraic Expression:}
\(\sqrt{0.3}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

\section*{Subtract 6 from 9.}
- \(9-6=3\)

Now, put the decimal points back.
- When we put the decimal points back we get, \(0.9-0.6=0.3\)

Type in 0.3.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.3.
Now subtract the whole numbers of the two decimals.
What is 5-2?
Algebraic Expression:
\(\sqrt{ } 3\)

\section*{Hints:}
- Start at 5 and count down 2
- \(5-2=3\)

Type in 3.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.3 ,
and the difference of the whole numbers is 3 .
Now try the original problem.
What is 5.9-2.6?
Algebraic Expression:
\(\sqrt{3.3}\)

\section*{Hints:}
- The difference of the tenths digits is 0.3 , and the difference of the whole numbers is 3.
- Add the above two differences to get the result.
- \(7-1.5=3.3\)

Thus,
\(5.9-2.6=3.3\)
Type in 3.3.
32) Problem \#PRAH4Y9 "PRAH4Y9 - Addition - two negative numbers"

What is \(-476.877+-372.951\) ?

\section*{Algebraic Expression:}
\(\sqrt{-849.828}\)
\(\sqrt{ }-849.8\)

- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-476.877+-372.951\) ?
- \(-476.877+-372.951=-849.828\). Type in -849.828.
33) Problem \#PRABE9T "PRABE9T - Addition - Decimals: carry over of tenths"

What is \(9.4+-9.6\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-0.2\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(9.4+-9.6\) is the same as \(9.4-9.6\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.4-0.6\) ?
Algebraic Expression:
\(\sqrt{ }-0.2\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 6 from 4.
- \(4-6=-2\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.4-0.6=-0.2\)
Type in -0.2 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.2 .
Now subtract the whole numbers of the two decimals.
What is 9-9?

\section*{Algebraic Expression:}
\(\sqrt{ } 0\)

\section*{Hints:}
- Start at 9 and count down 9
- \(9-9=0\)

Type in 0 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.2 ,
and the difference of the whole numbers is 0 .
Now try the original problem.

What is 9.4-9.6?

\section*{Algebraic Expression:}
\(\sqrt{-0.2}\)

\section*{Hints:}
- The difference of the tenths digits is -0.2 , and the difference of the whole numbers is 0 .
- Add the above two differences to get the result.
- \(18-1=-0.2\)

Thus,
\(9.4-9.6=-0.2\)
Type in -0.2 .

What is \(94.31-(-416.88)\) ?

\section*{Algebraic Expression:}
511.19
511.2

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite \(94.31-(-416.88)\) as \(94.31+416.88\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
94.31
\(\begin{array}{r}416.88 \\ \hline 51.19\end{array}\)
511.19

Type in 511.19.
35) Problem \#PRAH4Z3 "PRAH4Z3 - Subtraction - one positive, one negative number"

What is 223.39-(-267.64)?

\section*{Algebraic Expression:}
491.03

491.0

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite \(223.39-(-267.64)\) as \(223.39+267.64\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
223.39
\(+267.64\)
491.03

Type in 491.03.
36) Problem \#PRAH4ZM "PRAH4ZM - Addition - two negative numbers"

What is \(-213.837+-206.21\) ?

\section*{Algebraic Expression: \\ -420.047 \\ -420.0}

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-213.837+-206.21\) ?
- \(-213.837+-206.21=-420.047\). Type in -420.047 .
37) Problem \#PRAH4YY "PRAH4YY - Subtraction - two negative numbers"

What is -88.94-(-128.03)?

\section*{Algebraic Expression:}
39.09
39.1

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-88.94+128.03\)
How would you add a positive and a negative number?

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-88.94+128.03\) ?
(Remember, this is still the same as \(-88.94-(-128.03)\) )
- \(-88.94-(-128.03)=-88.94+128.03=39.09\). Type in 39.09.

\section*{38) Problem \#PRABE9G "PRABE9G - Addition - Decimals: carry over of tenths"}

What is \(4.4+-3.9\) ?

\section*{Algebraic Expression:}
0.5

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(4.4+-3.9\) is the same as \(4.4-3.9\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.4-0.9\) ?
Algebraic Expression:
\(\sqrt{ }-0.5\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 4.
- \(4-9=-5\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.4-0.9=-0.5\)
Type in -0.5 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.5 .
Now subtract the whole numbers of the two decimals.
What is 4-3?
Algebraic Expression:
\(\sqrt{1}\)

\section*{Hints:}
- Start at 4 and count down 3
- \(4-3=1\)

Type in 1.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.5 ,
and the difference of the whole numbers is 1 .
Now try the original problem.

What is \(4.4-3.9\) ?

\section*{Algebraic Expression:}
\(\sqrt{0.5}\)

\section*{Hints:}
- The difference of the tenths digits is -0.5 , and the difference of the whole numbers is 1 .
- Add the above two differences to get the result.
- \(7-1.3=0.5\)

Thus,
\(4.4-3.9=0.5\)
Type in 0.5 .

What is \(-282.671+-261.414\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-544.085
\(\sqrt{ }\)-544.1

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-282.671+-261.414\) ?
- \(-282.671+-261.414=-544.085\). Type in -544.085 .

\section*{40) Problem \#PRABE9B "PRABE9B - Addition - Decimals: carry over of tenths"}

What is \(8.9+-3.7\) ?
Algebraic Expression:
\(\sqrt{ } 5.2\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(8.9+-3.7\) is the same as \(8.9-3.7\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is 0.9-0.7?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.2\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 7 from 9.
- 9-7 = 2

- When we put the decimal points back we get,
\(0.9-0.7=0.2\)
Type in 0.2 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.2.
Now subtract the whole numbers of the two decimals.
What is \(8-3\) ?
Algebraic Expression:
\(\sqrt{ } 5\)

\section*{Hints:}
- Start at 8 and count down 3
- \(8-3=5\)

Type in 5.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.2 ,
and the difference of the whole numbers is 5 .
Now try the original problem.
What is 8.9-3.7?

\section*{Algebraic Expression:}
\(\sqrt{5.2}\)

\section*{Hints:}
- The difference of the tenths digits is 0.2 , and the difference of the whole numbers is 5 .
- Add the above two differences to get the result.
- 11 - \(1.6=5.2\)

Thus, \(8.9-3.7=5.2\)

Type in 5.2.
41) Problem \#PRAH4YV "PRAH4YV - Subtraction - two negative numbers"

What is -356.66-(-472.16)?

\section*{Algebraic Expression:}
115.5
115.5

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:

\[
-356.66+472.16
\]

How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-356.66+472.16\) ?
(Remember, this is still the same as -356.66-(-472.16))
- \(-356.66-(-472.16)=-356.66+472.16=115.5\). Type in 115.5.

\section*{Algebraic Expression:}
\(\sqrt{\text { - }} 70.96\)
\(\sqrt{ }-71.0\)

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-188.21+117.25\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-188.21+117.25\) ?
(Remember, this is still the same as \(-188.21-(-117.25)\) )
- \(-188.21-(-117.25)=-188.21+117.25=-70.96\). Type in -70.96 .

\section*{43) Problem \#PRAH4ZE "PRAH4ZE - Addition - two negative numbers"}

What is \(-302.448+-391.502\) ?

\section*{Algebraic Expression:}
- 693.95
-694.0

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

So what is \(-302.448+-391.502\) ?
- \(-302.448+-391.502=-693.95\). Type in -693.95.

\section*{44) Problem \#PRAH4ZW "PRAH4ZW - Subtraction - one positive, one negative number"} What is -232.6-155 ?

\section*{Algebraic Expression:}
-387.6
-387.6

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and

Another example: \(-3-4=-3+-4=-7\)
So you can rewrite -232.6-155 as -232.6 + -155.
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
-232.6
\(+-155\)
-387.6
Type in -387.6.
45) Problem \#PRAH4YK "PRAH4YK - Subtraction - two negative numbers"

What is \(-63.38-(-447.82)\) ?

\section*{Algebraic Expression:}
\(\sqrt{384.44}\)
384.4

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-63.38+447.82\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).

So what is \(-63.38+447.82\) ?
(Remember, this is still the same as \(-63.38-(-447.82)\) )
- \(-63.38-(-447.82)=-63.38+447.82=384.44\). Type in 384.44.

\section*{46) Problem \#PRAH4Y6 "PRAH4Y6 - Addition - two negative numbers"}

What is \(-391.291+-172.255\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-563.546\)
-563.5

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-391.291+-172.255\) ?
- \(-391.291+-172.255=-563.546\). Type in -563.546 .
47) Problem \#PRAH4Z8 "PRAH4Z8 - Subtraction - one positive, one negative number"

What is \(213.03-(-351.2)\) ?

\section*{Algebraic Expression:}
\(\sqrt{564.23}\)
, 564.2

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite \(213.03-(-351.2)\) as \(213.03+351.2\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
213.03
\(\begin{array}{r}+351.2 \\ \hline\end{array}\)
564.23

Type in 564.23.
48) Problem \#PRAH4YS "PRAH4YS - Subtraction - two negative numbers"


\section*{Algebraic Expression:}
\(\sqrt{-25.38}\)
-25.4

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-378.88+353.5\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.

For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-378.88+353.5\) ?
(Remember, this is still the same as \(-378.88-(-353.5)\) )
- \(-378.88-(-353.5)=-378.88+353.5=-25.38\). Type in -25.38 .
49) Problem \#PRAH4ZA "PRAH4ZA - Addition - two negative numbers"

What is \(-161.459+-302.061\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-463.52\)
- 463.5

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-161.459+-302.061\) ?
- \(-161.459+-302.061=-463.52\). Type in -463.52 .

\section*{50) Problem \#PRAH4ZH "PRAH4ZH - Addition - two negative numbers"}

What is \(-98.048+-32.912\) ?

\section*{Algebraic Expression:}
-130.96
-131.0

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative

\section*{answer.}

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-98.048+-32.912\) ?
- \(-98.048+-32.912=-130.96\). Type in -130.96 .

\section*{51) Problem \#PRABE9M "PRABE9M - Addition - Decimals: carry over of tenths"}

What is \(6.8+-7.3\) ?

\section*{Algebraic Expression:}
-0.5

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(6.8+-7.3\) is the same as \(6.8-7.3\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.8-0.3\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.5\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 3 from 8.
- \(8-3=5\)

Now, put the decimal points back.
- When we put the decimal points back we get, \(0.8-0.3=0.5\)

Type in 0.5 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.5 .
Now subtract the whole numbers of the two decimals.
What is 6-7?
Algebraic Expression:
\(\sqrt{ }-1\)

\section*{Hints:}
- Start at 6 and count down 7
- 6-7=-1

Type in -1 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.5 , and the difference of the whole numbers is -1 .

Now try the original problem.
What is 6.8-7.3?

\section*{Algebraic Expression:}

\(\sqrt{-0.5}\)

\section*{Hints:}
- The difference of the tenths digits is 0.5 , and the difference of the whole numbers is -1 .
- Add the above two differences to get the result.
- 13-1.1 = -0.5

Thus,
\(6.8-7.3=-0.5\)
Type in -0.5 .

\section*{Algebraic Expression:}
\(\sqrt{-601.247}\)
\(\sqrt{ }-601.2\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-467.427+-133.82\) ?
- \(-467.427+-133.82=-601.247\). Type in -601.247.

\section*{53) Problem \#PRAH4ZT "PRAH4ZT - Subtraction - one positive, one negative number"}

What is \(133.34-(-405.39)\) ?

\section*{Algebraic Expression:}
\(\sqrt{538.73}\)
\(\sqrt{ } 538.7\)

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 133.34 - (-405.39) as \(133.34+405.39\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
133.34
\(+405.39\)

Type in 538.73.

\section*{54) Problem \#PRAH4YX "PRAH4YX - Subtraction - two negative numbers"}

What is -267.63-(-493.97)?

\section*{Algebraic Expression:}
\(\sqrt{226.34}\)
\(\sqrt{226.3}\)

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-267.63+493.97\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-267.63+493.97\) ?
(Remember, this is still the same as -267.63-(-493.97))
- \(-267.63-(-493.97)=-267.63+493.97=226.34\). Type in 226.34.

\section*{55) Problem \#PRAH4YH "PRAH4YH - Subtraction - two negative numbers"}

What is -281.66-(-12.36)?

\section*{Algebraic Expression:}
\(\sqrt{-269.3}\)
-269.3

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-281.66+12.36\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
(Remember, this is still the same as \(-281.66-(-12.36)\) )
- \(-281.66-(-12.36)=-281.66+12.36=-269.3\). Type in -269.3 .
56) Problem \#PRABE9P "PRABE9P - Addition - Decimals: carry over of tenths"

What is \(3.9+-9.1\) ?

\section*{Algebraic Expression:}
\(\sqrt{-5.2}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(3.9+-9.1\) is the same as \(3.9-9.1\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.9-0.1\) ?
Algebraic Expression:
\(\sqrt{0.8}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 1 from 9 .
- 9-1 = 8

Now, put the decimal points back.
- When we put the decimal points back we get, \(0.9-0.1=0.8\)

Type in 0.8 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.8 .
Now subtract the whole numbers of the two decimals.
What is 3-9?

\section*{Algebraic Expression:}
\(\sqrt{-6}\)

\section*{Hints:}
- Start at 3 and count down 9
- \(3-9=-6\)

Type in -6.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.8 , and the difference of the whole numbers is -6 .

Now try the original problem.
What is 3.9-9.1?
Algebraic Expression:
\[
\sqrt{ }-5.2
\]

- The difference of the tenths digits is 0.8 , and the difference of the whole numbers is -6 .
- Add the above two differences to get the result.
- \(12-1=-5.2\)

Thus,
\(3.9-9.1=-5.2\)
Type in -5.2.

\section*{57) Problem \#PRABE9E "PRABE9E - Addition - Decimals: carry over of tenths"}

What is \(4.2+-1.8\) ?

\section*{Algebraic Expression:}
\(\sqrt{2.4}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(4.2+-1.8\) is the same as \(4.2-1.8\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.2-0.8\) ?
Algebraic Expression:
\(\sqrt{ }-0.6\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 8 from 2.
- \(2-8=-6\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.2-0.8=-0.6\)
Type in -0.6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 .
Now subtract the whole numbers of the two decimals.
What is 4-1?
Algebraic Expression:
\(\sqrt{ } 3\)

\section*{Hints:}
- Start at 4 and count down 1
- \(4-1=3\)

Type in 3.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 ,
and the difference of the whole numbers is 3 ,

Now try the original problem.
What is 4.2-1.8?

\section*{Algebraic Expression:}
\(\sqrt{ } 2.4\)

\section*{Hints:}
- The difference of the tenths digits is -0.6 , and the difference of the whole numbers is 3 .
- Add the above two differences to get the result.
- 5-1 \(=2.4\)

Thus,
\(4.2-1.8=2.4\)
Type in 2.4.
58) Problem \#PRAH4YM "PRAH4YM - Subtraction - two negative numbers"

What is -293.26-(-270.99)?

\section*{Algebraic Expression:}
\(\sqrt{ }-22.27\)
- 22.3

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\[
-293.26+270.99
\]

How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).

So what is \(-293.26+270.99\) ?
(Remember, this is still the same as -293.26-(-270.99))
- \(-293.26-(-270.99)=-293.26+270.99=-22.27\). Type in -22.27 .

\section*{59) Problem \#PRABE9J "PRABE9J - Addition - Decimals: carry over of tenths"}

What is \(8.6+-1.4\) ?

\section*{Algebraic Expression:}

ง 7.2

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(8.6+-1.4\) is the same as \(8.6-1.4\)

Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.

What is \(0.6-0.4\) ?

\section*{Algebraic Expression:}
, 0.2

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 4 from 6.
- 6-4 = 2

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.6-0.4=0.2\)
Type in 0.2 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.2 .
Now subtract the whole numbers of the two decimals.

What is \(8-1\) ?
Algebraic Expression:
\(\sqrt{ } 7\)

\section*{Hints:}
- Start at 8 and count down 1
- 8-1 = 7

Type in 7.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.2 ,
and the difference of the whole numbers is 7 .
Now try the original problem.
What is 8.6-1.4?
Algebraic Expression:
\(\sqrt{ } 7.2\)

\section*{Hints:}
- The difference of the tenths digits is 0.2 , and the difference of the whole numbers is 7 .
- Add the above two differences to get the result.
- 9-1 \(=7.2\)

Thus,
\(8.6-1.4=7.2\)
Type in 7.2.
60) Problem \#PRAH4YQ "PRAH4YQ - Subtraction - two negative numbers"

What is -48.15-(-69.75)?

\section*{Algebraic Expression:}
21.6
\(\sqrt{21.6}\)

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-48.15+69.75\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).

So what is \(-48.15+69.75\) ?
(Remember, this is still the same as -48.15-(-69.75))
- \(-48.15-(-69.75)=-48.15+69.75=21.6\). Type in 21.6.
61) Problem \#PRABE9Y "PRABE9Y - Addition - Decimals: carry over of tenths"

What is \(7.9+-7.9\) ?

\section*{Algebraic Expression:}
\(\sqrt{0}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(7.9+-7.9\) is the same as \(7.9-7.9\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is 0.9-0.9?

\section*{Algebraic Expression:}
\(\checkmark 0\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 9 .
- \(9-9=0\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.9-0.9=0\)
Type in 0.

\section*{Scaffold:}

You know the difference of the tenths digits is 0 .
Now subtract the whole numbers of the two decimals.

What is 7-7?


\(\sqrt{ } 0\)
Hints:
- Start at 7 and count down 7
- 7-7=0

Type in 0 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0 ,
and the difference of the whole numbers is 0 .
Now try the original problem.
What is 7.9-7.9?
Algebraic Expression:

\section*{Hints:}
- The difference of the tenths digits is 0 , and the difference of the whole numbers is 0 .
- Add the above two differences to get the result.
- \(14-1.8=0\)

Thus,
\(7.9-7.9=0\)
Type in 0 .
62) Problem \#PRAH4ZU "PRAH4ZU - Subtraction - one positive, one negative number"

What is -34.41-294.88?

\section*{Algebraic Expression:}
-329.29
\(\sqrt{ }\)-329.3

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite \(-34.41-294.88\) as \(-34.41+-294.88\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
-34.41
\(+-294.88\)
-329.29

Type in -329.29.
63) Problem \#PRABE9W "PRABE9W - Addition - Decimals: carry over of tenths"

What is \(6.7+-2.6\) ?
Algebraic Expression:
4.1

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(6.7+-2.6\) is the same as \(6.7-2.6\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.7-0.6\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.1\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 6 from 7.
- \(7-6=1\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.7-0.6=0.1\)
Type in 0.1.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.1.
Now subtract the whole numbers of the two decimals.
What is 6-2?
Algebraic Expression:
\(\sqrt{ } 4\)

\section*{Hints:}
- Start at 6 and count down 2
- 6-2 = 4

Type in 4.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.1, and the difference of the whole numbers is 4 .

Now try the original problem.
What is 6.7-2.6?

\section*{Algebraic Expression:}
4.1

\section*{Hints:}
- The difference of the tenths digits is 0.1 , and the difference of the whole numbers is 4 .
- Add the above two differences to get the result.
- \(8-1.3=4.1\)

Thus,
\(6.7-2.6=4.1\)
Type in 4.1.

\section*{Algebraic Expression:}
\(\sqrt{ }\)-330.56
-330.6

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-341.06+10.5\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-341.06+10.5\) ?
(Remember, this is still the same as \(-341.06-(-10.5)\) )
- \(-341.06-(-10.5)=-341.06+10.5=-330.56\). Type in -330.56 .

\section*{65) Problem \#PRABE9C "PRABE9C - Addition - Decimals: carry over of tenths"}

What is \(6.9+-10.1\) ?

\section*{Algebraic Expression:}
\(\sqrt{-3.2}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(6.9+-10.1\) is the same as \(6.9-10.1\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.9-0.1\) ?

\section*{Algebraic Expression:}


\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 1 from 9.
- 9-1 = 8

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.9-0.1=0.8\)
Type in 0.8 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.8.
Now subtract the whole numbers of the two decimals.
What is 6-10?
Algebraic Expression:
\(\sqrt{ }-4\)
Hints:
- Start at 6 and count down 10
- \(6-10=-4\)

Type in -4.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.8 ,
and the difference of the whole numbers is -4 .
Now try the original problem.
What is 6.9-10.1?

\section*{Algebraic Expression:}
\(\sqrt{-3.2}\)

\section*{Hints:}
- The difference of the tenths digits is 0.8 , and the difference of the whole numbers is -4 .
- Add the above two differences to get the result.
- 16-1 = -3.2

Thus,
\(6.9-10.1=-3.2\)
Type in -3.2.

\section*{66) Problem \#PRAH4ZD "PRAH4ZD - Addition - two negative numbers"}

What is \(-98.886+-466.668\) ?

\section*{Algebraic Expression:}

-565.6

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-98.886+-466.668\) ?
- \(-98.886+-466.668=-565.554\). Type in -565.554 .

\section*{Algebraic Expression:}
\(\sqrt{2.4}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(10.8+-8.4\) is the same as \(10.8-8.4\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.8-0.4\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.4\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 4 from 8.
- 8-4 = 4

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.8-0.4=0.4\)
Type in 0.4.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.4.
Now subtract the whole numbers of the two decimals.
What is \(10-8\) ?
Algebraic Expression:
\(\sqrt{ } 2\)
Hints:
- Start at 10 and count down 8
- \(10-8=2\)

Type in 2.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.4, and the difference of the whole numbers is 2.

Now try the original problem.
What is \(10.8-8.4\) ?
Algebraic Expression:
\(\sqrt{ } 2.4\)

\section*{Hints:}
- The difference of the tenths digits is 0.4 , and the difference of the whole numbers is 2 .
- Add the above two differences to get the result.
- \(18-1.2=2.4\)

Thus,
\(10.8-8.4=2.4\)
Type in 2.4.
68) Problem \#PRAH4ZR "PRAH4ZR - Subtraction - one positive, one negative number"

What is -479.39-463.07?

\section*{Algebraic Expression:}
\(\sqrt{-942.46}\)
\(\sqrt{ }\)-942.5

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite -479.39-463.07 as \(-479.39+-463.07\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
-479.39
\(\begin{array}{r}+-463.07 \\ \hline-942.46\end{array}\)
Type in -942.46.

\section*{69) Problem \#PRAH4YN "PRAH4YN - Subtraction - two negative numbers"}

What is -367.39-(-79.21)?
```

    Algebraic Expression:
    ```

```

        -288.18
        -288.2
    ```

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-367.39+79.21\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-367.39+79.21\) ?
(Remember, this is still the same as -367.39-(-79.21))
- \(-367.39-(-79.21)=-367.39+79.21=-288.18\). Type in -288.18 .
70) Problem \#PRABE9A "PRABE9A - Addition - Decimals: carry over of tenths"

What is \(5.8+-6.3\) ?

\section*{Algebraic Expression:}
\(\sqrt{-0.5}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(5.8+-6.3\) is the same as \(5.8-6.3\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.8-0.3\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.5\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 3 from 8.
- 8-3 = 5

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.8-0.3=0.5\)
Type in 0.5 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.5 .
Now subtract the whole numbers of the two decimals.
What is 5-6?

\section*{Algebraic Expression:}
\(\sqrt{ }-1\)
Hints:

- 5-6=-1

Type in -1.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.5 , and the difference of the whole numbers is -1 .

Now try the original problem.
What is 5.8-6.3?
Algebraic Expression:
\(\sqrt{-0.5}\)

\section*{Hints:}
- The difference of the tenths digits is 0.5 , and the difference of the whole numbers is -1 .
- Add the above two differences to get the result.
- \(11-1.1=-0.5\)

Thus,
\(5.8-6.3=-0.5\)
Type in -0.5 .

\section*{71) Problem \#PRABE9F "PRABE9F - Addition - Decimals: carry over of tenths"}

What is \(10.3+-4.9\) ?

\section*{Algebraic Expression:}
\(\sqrt{ } 5.4\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(10.3+-4.9\) is the same as \(10.3-4.9\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.3-0.9\) ?

\section*{Algebraic Expression:}
\[
\sqrt{-0.6}
\]

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 3.
- \(3-9=-6\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.3-0.9=-0.6\)
Type in -0.6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 .

What is 10-4?

\section*{Algebraic Expression:}
\(\sqrt{6}\)

\section*{Hints:}
- Start at 10 and count down 4
- \(10-4=6\)

Type in 6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 , and the difference of the whole numbers is 6 .

Now try the original problem.

What is 10.3-4.9?

\section*{Algebraic Expression:}
\(\sqrt{ } 5.4\)

\section*{Hints:}
- The difference of the tenths digits is -0.6 , and the difference of the whole numbers is 6 .
- Add the above two differences to get the result.
- \(14-1.2=5.4\)

Thus,
\(10.3-4.9=5.4\)
Type in 5.4.

\section*{72) Problem \#PRAH4YU "PRAH4YU - Subtraction - two negative numbers"}

What is -438.21-(-466.82)?

\section*{Algebraic Expression:}
\(\sqrt{ } 28.61\)
28.6

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-438.21+466.82\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-438.21+466.82\) ?
(Remember, this is still the same as -438.21-(-466.82))
- \(-438.21-(-466.82)=-438.21+466.82=28.61\). Type in 28.61 .

\section*{73) Problem \#PRABE9K "PRABE9K - Addition - Decimals: carry over of tenths"}

\section*{What is \(8.7+-3.3\) ?}

\section*{Algebraic Expression:}
5.4

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(8.7+-3.3\) is the same as \(8.7-3.3\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.7-0.3\) ?

\section*{Algebraic Expression:}
\(\sqrt{0.4}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 3 from 7.
- \(7-3=4\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.7-0.3=0.4\)
Type in 0.4.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.4.
Now subtract the whole numbers of the two decimals.
What is \(8-3\) ?
Algebraic Expression:
\(\sqrt{ } 5\)

\section*{Hints:}
- Start at 8 and count down 3
- \(8-3=5\)

Type in 5 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.4 , and the difference of the whole numbers is 5 .

Now try the original problem.
What is \(8.7-3.3\) ?

\section*{Algebraic Expression:}

5.4

\section*{Hints:}
- The difference of the tenths digits is 0.4 ,
and the difference of the whole numbers is 5 .
- Add the above two differences to get the result.
- 11-1 = 5.4

Thus,
\(8.7-3.3=5.4\)
Type in 5.4.

\section*{Algebraic Expression:}

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(10.5+-6.9\) is the same as \(10.5-6.9\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is 0.5-0.9?
Algebraic Expression:
\(\sqrt{ }-0.4\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 9 from 5 .
- \(5-9=-4\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.5-0.9=-0.4\)

Type in -0.4.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.4 .
Now subtract the whole numbers of the two decimals.
What is \(10-6\) ?

\section*{Algebraic Expression:}


Hints:
- Start at 10 and count down 6
- 10-6 = 4

Type in 4.

\section*{Scaffold:} and the difference of the whole numbers is 4 .

Now try the original problem.
What is 10.5-6.9?

\section*{Algebraic Expression:}
3.6

\section*{Hints:}
- The difference of the tenths digits is -0.4 , and the difference of the whole numbers is 4 .
- Add the above two differences to get the result.
- 16-1.4 = 3.6

Thus,
\(10.5-6.9=3.6\)

Type in 3.6.

\section*{75) Problem \#PRABE9H "PRABE9H - Addition - Decimals: carry over of tenths"}

What is \(10.5+-10.6\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-0.1\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(10.5+-10.6\) is the same as \(10.5-10.6\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is 0.5-0.6?

\section*{Algebraic Expression:}
\(\sqrt{-0.1}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 6 from 5 .
- 5-6 =-1

Now, put the decimal points back.
- When we put the decimal points back we get, \(0.5-0.6=-0.1\)

Type in -0.1.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.1 .
Now subtract the whole numbers of the two decimals.
What is \(10-10\) ?
Algebraic Expression:
\(\sqrt{0}\)
- Start at 10 and count down 10
- \(10-10=0\)

Type in 0 .

\section*{Scaffold:}

You know the difference of the tenths digits is -0.1 , and the difference of the whole numbers is 0 .

Now try the original problem.
What is 10.5-10.6?

\section*{Algebraic Expression:}
\[
\sqrt{ }-0.1
\]

\section*{Hints:}
- The difference of the tenths digits is -0.1 ,
and the difference of the whole numbers is 0 .
- Add the above two differences to get the result.
- 20-1.1 = -0.1

Thus,
\(10.5-10.6=-0.1\)
Type in -0.1.

\section*{76) Problem \#PRAH4ZB "PRAH4ZB - Addition - two negative numbers"}

What is \(-466.25+-91.528\) ?

\section*{Algebraic Expression:}
\(\sqrt{-557.778}\)
\(\sqrt{ }-557.8\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-466.25+-91.528\) ?
- \(-466.25+-91.528=-557.778\). Type in -557.778 .

\section*{77) Problem \#PRAH4YJ "PRAH4YJ - Subtraction - two negative numbers"}

What is -86.2-(-0.8)?

\section*{Algebraic Expression:}
-85.4


\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
\(-86.2+0.8\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-86.2+0.8\) ?
(Remember, this is still the same as \(-86.2-(-0.8)\) )
- \(-86.2-(-0.8)=-86.2+0.8=-85.4\). Type in -85.4 .
78) Problem \#PRABE9V "PRABE9V - Addition - Decimals: carry over of tenths"

What is \(1.6+-7.8\) ?
Algebraic Expression:
\(\sqrt{-6.2}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(1.6+-7.8\) is the same as \(1.6-7.8\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.6-0.8\) ?

\section*{Algebraic Expression:}
\(\sqrt{-0.2}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 8 from 6.
- 6-8 = -2

Now, put the decimal points back.
- When we put the decimal points back we get, \(0.6-0.8=-0.2\)

Type in -0.2.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.2 .
Now subtract the whole numbers of the two decimals.

What is \(1-7\) ?
Algebraic Expression:
\(\sqrt{-6}\)

\section*{Hints:}
- Start at 1 and count down 7
- \(1-7=-6\)

Type in -6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.2 ,
and the difference of the whole numbers is -6 .
Now try the original problem.
What is 1.6-7.8?
Algebraic Expression:
\(\sqrt{ }-6.2\)

\section*{Hints:}
- The difference of the tenths digits is -0.2 ,
and the difference of the whole numbers is -6.
- Add the above two differences to get the result.
- \(8-1.4=-6.2\)

Thus,
\(1.6-7.8=-6.2\)
Type in -6.2.
79) Problem \#PRAH4ZN "PRAH4ZN - Addition - two negative numbers"

What is \(-492.584+-11.805\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }\)-504.389
\(\sqrt{ }-504.4\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-492.584+-11.805\) ?
- \(-492.584+-11.805=-504.389\). Type in -504.389 .
80) Problem \#PRABE89 "PRABE89 - Addition - Decimals: carry over of tenths"

What is \(7.7+-10.6\) ?

\section*{Algebraic Expression:}
-2.9

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(7.7+-10.6\) is the same as \(7.7-10.6\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.

\section*{What is \(0.7-0.6\) ?}

Algebraic Expression:
\(\sqrt{0.1}\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 6 from 7.
- \(7-6=1\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.7-0.6=0.1\)
Type in 0.1.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.1.
Now subtract the whole numbers of the two decimals.

What is \(7-10\) ?
Algebraic Expression:
\(\sqrt{ }-3\)

\section*{Hints:}
- Start at 7 and count down 10
- \(7-10=-3\)

Type in -3.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.1,
and the difference of the whole numbers is -3 .
Now try the original problem.
What is 7.7-10.6?
Algebraic Expression:
\(\sqrt{ }-2.9\)

\section*{Hints:}
- The difference of the tenths digits is 0.1 , and the difference of the whole numbers is -3 .
- Add the above two differences to get the result.
- 17-1.3=-2.9

Thus,
\(7.7-10.6=-2.9\)
Type in -2.9.
81) Problem \#PRAH4Y8 "PRAH4Y8 - Addition - two negative numbers"

What is \(-132.571+-310.224\) ?

\section*{Algebraic Expression:}
\(\sqrt{ }-442.795\)
\(\sqrt{ }-442.8\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-132.571+-310.224\) ?
- \(-132.571+-310.224=-442.795\). Type in -442.795 .

\section*{Algebraic Expression:}
\(\sqrt{\text {-525.054 }}\)
\(\sqrt{ }-525.1\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-267.766+-257.288\) ?
- \(-267.766+-257.288=-525.054\). Type in -525.054 .

\section*{83) Problem \#PRAH4Z5 "PRAH4Z5 - Subtraction - one positive, one negative number"}

What is \(221.01-(-466.01)\) ?

\section*{Algebraic Expression:}
687.02
687.0

\section*{Hints:}
- One way to think about subtracting is to change it to adding the opposite:

One example: \(1-(-2)=1+2=3\), and
Another example: \(-3-4=-3+-4=-7\)
So you can rewrite 221.01 - (-466.01) as \(221.01+466.01\).
- Since both numbers are negative you are just adding a distance to the left with another distance to the left so just add the values.
221.01
 687.02

Type in 687.02.

\section*{84) Problem \#PRABE9Z "PRABE9Z - Addition - Decimals: carry over of tenths"}

What is \(7.9+-1.1\) ?

\section*{Algebraic Expression:}
\(\sqrt{6.8}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(7.9+-1.1\) is the same as \(7.9-1.1\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.

What is 0.9-0.1?

\section*{Algebraic Expression:}
\(\sqrt{ } 0.8\)

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 1 from 9.
- 9-1 = 8

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.9-0.1=0.8\)
Type in 0.8 .

\section*{Scaffold:}

You know the difference of the tenths digits is 0.8.
Now subtract the whole numbers of the two decimals.
What is 7-1?
Algebraic Expression:
\(\sqrt{6}\)
Hints:
- Start at 7 and count down 1
- 7-1 = 6

Type in 6.

\section*{Scaffold:}

You know the difference of the tenths digits is 0.8 , and the difference of the whole numbers is 6 .

Now try the original problem.
What is 7.9-1.1?

\section*{Algebraic Expression:}
\(\sqrt{6.8}\)

\section*{Hints:}
- The difference of the tenths digits is 0.8 , and the difference of the whole numbers is 6 .
- Add the above two differences to get the result.
- 8-1 = 6.8

Thus,
\(7.9-1.1=6.8\)
Type in 6.8.

\section*{Algebraic Expression:}
\(\sqrt{ }-407.654\)
\(\sqrt{-407.7}\)

\section*{Hints:}
- Adding two negative numbers is the same as adding two positive numbers, just with a negative answer.

For example, \(-1+-2=-3\), and \(-3+-4=-7\).
So what is \(-56.659+-350.995\) ?
- \(-56.659+-350.995=-407.654\). Type in -407.654 .

\section*{86) Problem \#PRABE9R "PRABE9R - Addition - Decimals: carry over of tenths"}

What is \(7.2+-4.8\) ?

\section*{Algebraic Expression:}
\(\sqrt{2.4}\)

\section*{Scaffold:}

First, you can simplify this problem, by simplifying the signs.
\(7.2+-4.8\) is the same as \(7.2-4.8\)
Next, to subtract the decimals, you can start by subtracting their digits at the tenths place.
What is \(0.2-0.8\) ?

\section*{Algebraic Expression:}
\[
\sqrt{~-0.6}
\]

\section*{Hints:}
- Let us remove the decimal points from the sum and subtract them.

Subtract 8 from 2.
- \(2-8=-6\)

Now, put the decimal points back.
- When we put the decimal points back we get,
\(0.2-0.8=-0.6\)
Type in -0.6.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 .
Now subtract the whole numbers of the two decimals.
What is 7-4?

\section*{Algebraic Expression:}
\(\sqrt{ } 3\)

\section*{Hints:}
- Start at 7 and count down 4
- \(7-4=3\)

Type in 3.

\section*{Scaffold:}

You know the difference of the tenths digits is -0.6 ,
and the difference of the whole numbers is 3 .
Now try the original problem.
What is 7.2-4.8?
Algebraic Expression:
\(\sqrt{2.4}\)

\section*{Hints:}
- The difference of the tenths digits is -0.6 , and the difference of the whole numbers is 3 .
- Add the above two differences to get the result.
- 11-1 = 2.4

Thus,
\(7.2-4.8=2.4\)
Type in 2.4.
87) Problem \#PRAH4YR "PRAH4YR - Subtraction - two negative numbers"

What is -89.94-(-466.83)?

\section*{Algebraic Expression:}
376.89
376.9

\section*{Hints:}
- Subtracting a negative is the same as adding a positive, so you can rewrite this problem as:
http: \(\quad-89.94+466.83\)
How would you add a positive and a negative number?
- When you add numbers of opposite signs, you just subtract their absolute values.

The answer has the same sign as the greater number.
For example, \(-2+1=-1\), and \(-3+4=1\).
So what is \(-89.94+466.83\) ?
(Remember, this is still the same as \(-89.94-(-466.83)\) )
- \(-89.94-(-466.83)=-89.94+466.83=376.89\). Type in 376.89 .

\section*{Problem Set "Adding and Subtracting Mixed Fractions 5.NF.A.1" id:[РААВккш]}

\section*{Select All}
1) Problem \#PRAJEBU "PRAJEBU - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
11 \frac{3}{-}-8 \frac{7}{7}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 271 / 84\)

\section*{Hints:}
- The denominators 7 and \(\mathbf{1 2}\) have no common factors greater than 1 .
\[
11 \frac{3}{7}-8 \frac{7}{12}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 7 by \(\mathbf{1 2}\) :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
```

$11-8-=11--8$ -
7*12 12*7 84 84

```

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 11, and represent it in fractional form using the common denominator: \(11=10+1=\) 10+84/84


Next, group the numerator and whole numbers:

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((10-8) \frac{120-49}{84}=2 \frac{71}{84}\)

Enter 2 71/84

\section*{2) Problem \#PRAJEBX "PRAJEBX - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\(6 \frac{3}{10}-3 \frac{3}{11}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 33 / 110\)

\section*{Hints:}
- The denominators \(\mathbf{1 0}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\(6 \frac{3}{10}-3 \frac{3}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:

Find equivalent fractions using the denominator \(\mathbf{1 1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:


Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(6-3) \frac{33-30}{110}=3 \frac{3}{110}
\]

Enter 3 3/110
3) Problem \#PRAJDKH "PRAJDKH - Adding Mixed Numbers"

Find the sum:
\[
\begin{array}{r}
1 \\
8- \\
6
\end{array} \frac{2}{5}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
(1117/30

\section*{Hints:}
\(\square\)
The denominators 6 and 5 have no common factors greater than 1 .

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.

\section*{PSABKKK 3.2}
-
Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
8 \frac{1 * 5}{6 * 5}+3 \frac{2 * 6}{5 * 6}=8 \frac{5}{30}+3 \frac{12}{30}
\]

Next, group the numerator and whole numbers:
```

            5
    ```

```

            8+3- = (8+3)
                                3030
    ```

Now, sum the numerator and whole numbers.

\section*{PSABKKK 3.3}

-
Summing the numerator and the whole numbers gives:
\[
(8+3) \frac{5+12}{30}=11 \frac{17}{30}
\]

Enter 11 17/30
4) Problem \#PRAJDKE "PRAJDKE - Adding Mixed Numbers"

Find the sum:
\[
7 \frac{1}{10}+7 \frac{9}{11}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space


\section*{Exact Match (case sensitive):}

14 101/110

\section*{Hints:}
- The denominators 10 and \(\mathbf{1 1}\) have no common factors greater than 1.
\(7 \frac{1}{10}+7 \frac{9}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:
\[
10 * 11=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(7 \frac{1 * 11}{10 * 11}+7 \frac{9 * 10}{11 * 10}=7 \frac{11}{110}+7 \frac{90}{110}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(7+7) \frac{11+90}{110}=14 \frac{101}{110}
\]

Enter 14 101/110
5) Problem \#PRAJEB2 "PRAJEB2-224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
1 & 2 \\
7- \\
2 & -5
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(15 / 6\)

\section*{Hints:}
- The denominators 2 and 3 have no common factors greater than 1 .
\begin{tabular}{rr}
1 & 2 \\
2 & - \\
2
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(7 \frac{1 * 3}{2 * 3}-5 \frac{2 * 2}{3 * 2}=7 \frac{3}{6}-5 \frac{4}{6}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 7 , and represent it in fractional form using the common denominator: \(7=6+1=\) 6+6/6


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((6-5) \frac{9-4}{6}=1 \frac{5}{6}\)

Enter 1 5/6
6) Problem \#PRAJEB4 "PRAJEB4-224054 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{rr}
3 & 2 \\
\(11-\) & \(-10-\) \\
8 & 9
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{111 / 72}\)

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(11 \frac{3^{* 9}}{\mathbf{8}^{* 9}}-10 \frac{2^{* 8}}{\mathbf{9 * 8}}=11 \frac{27}{72}-10 \frac{16}{72}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:


Enter 1 11/72

\section*{7) Problem \#PRAJDKB "PRAJDKB - Adding Mixed Numbers"}

Find the sum:
\[
2 \frac{5}{7}+2 \frac{1}{12}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 467 / 84\)

\section*{Hints:}
- The denominators 7 and \(\mathbf{1 2}\) have no common factors greater than 1 .
\(2 \frac{5}{7}+2 \frac{1}{12}\)

Because the denominators have no common factors, find the least common denominator by multiplying 7 by 12 :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
2 \frac{5 * 12}{7 * 12}+2 \frac{1 * 7}{12 * 7}=2 \frac{60}{84}+2 \frac{7}{84}
\]

Next, group the numerator and whole numbers:
\[
2 \frac{60}{84}+2 \frac{7}{84}=(2+2) \frac{60+7}{84}
\]

Now, sum the numerator and whole numbers.
\[
(2+2) \frac{60+7}{84}=4 \frac{67}{84}
\]

Enter 4 67/84

\section*{8) Problem \#PRAJDJ8 "PRAJDJ8 - Adding Mixed Numbers"}

Find the sum:
\[
1 \frac{1}{2}+2 \frac{2}{3}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 1 / 6\)

\section*{Hints:}
- The denominators 2 and 3 have no common factors greater than 1 .
\[
\begin{array}{r}
1 \\
1- \\
2
\end{array}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
1 \frac{1 * 3}{2 * 3}+2 \frac{2 * 2}{3 * 2}=1 \frac{3}{6}+2 \frac{4}{6}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(1+2) \frac{3+4}{6} & =3 \frac{7}{6} \\
& =3+1 & 1 / 6 \\
& =4 & 1 / 6
\end{array}
\]

Enter 4 1/6

\section*{9) Problem \#PRAJDKK "PRAJDKK - Adding Mixed Numbers"}

Find the sum:
\[
\begin{array}{r}
2 \\
6- \\
9
\end{array}+\frac{6}{7}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, 15 5/63

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\[
\begin{array}{r}
2 \\
6- \\
9
\end{array}+\frac{6}{7}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(6 \frac{2 * 7}{9 * 7}+8 \frac{6 * 9}{7 * 9}=6 \frac{14}{63}+8 \frac{54}{63}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(6+8) \frac{14+54}{63} & =14 \frac{68}{63} \\
& =14+1 & 5 / 63 \\
& =15 & 5 / 63
\end{array}
\]

Enter 15 5/63
10) Problem \#PRAJD9U "PRAJD9U - 224053 - Subtracting Mixed Numbers"

Find the difference:

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
, \(41 / 18\)

\section*{Hints:}
- Notice 12 is a factor of 36.
\[
7 \frac{1}{12}-3 \frac{1}{36}
\]

Because 12 is a factor of 36, the least common denominator is 36 .
- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by \(\mathbf{3 6} / \mathbf{1 2 = 3}\) (note: \(12 * 3=36\) ):
\(7 \frac{1 * 3}{12 * 3}-3 \frac{1}{36}=7 \frac{3}{36}-3 \frac{1}{36}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{7} \frac{3}{36}-3 \frac{1}{36}\)

Next, group the whole number terms and put both fractions together over the common denominator:
```

            7 - - 3 - = (7-3)
        \(\begin{array}{lll}36 & 36 & 36\end{array}\)
    ```

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\begin{array}{rlc}
(7-3) \frac{3-1}{36} & =4 & \frac{2}{36} \\
& =4 & 1 / 18
\end{array}
\]

Enter 4 1/18

\section*{11) Problem \#PRAJEEN "PRAJEEN - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
9_{4}-6{ }_{1}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 33 / 10\)

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\begin{tabular}{rr}
4 \\
\(9-\) & \(6-1\) \\
5 & 2
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(9 \frac{4 * 2}{5 * 2}-6 \frac{1 * 5}{2 * 5}=9 \frac{8}{10}-6 \frac{5}{10}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\(9{ }_{10}-{ }^{8}-6 \frac{5}{10}\)

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(9-6) \(\frac{8-5}{10}=3 \frac{3}{10}\)

\section*{12) Problem \#PRAJDNS "PRAJDNS - Adding Mixed Numbers"}

Find the sum:
\(4 \underset{8}{1}+4 \frac{8}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
- \(91 / 72\)

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\[
4 \frac{1}{-}+4 \frac{8}{9}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(4 \frac{1 * 9}{8^{* 9}}+4 \frac{8 * 8}{9 * 8}=4 \frac{9}{72}+4 \frac{64}{72}\)

Next, group the numerator and whole numbers:
\[
4 \frac{9}{72}+4 \frac{64}{72}=(4+4) \frac{9+64}{72}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
(4+4) \frac{9+64}{72} & =8 \frac{73}{72} \\
& =8+1 \quad 1 / 72
\end{aligned}
\]

\section*{13) Problem \#PRAJEBY "PRAJEBY - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{rr}
1 & 1 \\
4- & -2 \frac{1}{18}
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(21 / 9\)

\section*{Hints:}
- Notice \(\mathbf{6}\) is a factor of \(\mathbf{1 8}\).
\[
4 \frac{1}{6}-2 \frac{1}{18}
\]

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6^{* 3}=18\) ):
\(4 \frac{1 * 3}{6 * 3}-2 \frac{1}{18}=4 \frac{3}{18}-2 \frac{1}{18}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\(4 \frac{3}{18}-2 \frac{1}{18}\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(4 \frac{3}{18}-2 \frac{1}{18}=(4-2) \frac{3-1}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((4-2) 3-1=22\)
```

18 18
=2 1/9

```

Enter 2 1/9
14) Problem \#PRAJEAQ "PRAJEAQ - 224053 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{cr}
1 & 1 \\
\(5-\) & \(-4 \frac{1}{18}\)
\end{tabular}

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(11 / 18\)

\section*{Hints:}
- Notice 9 is a factor of 18.
\[
5 \underset{9}{1}-4 \frac{1}{18}
\]

Because 9 is a factor of 18, the least common denominator is 18.
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\(5 \frac{1 * 2}{9 * 2}-4 \frac{1}{18}=5 \frac{2}{18}-4 \frac{1}{18}\)

\footnotetext{

}


Next, group the whole number terms and put both fractions together over the common denominator:
\(5 \frac{2}{18}-4 \frac{1}{18}=(5-4) \frac{2-1}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((5-4) 2-1=1 \quad 1\)
\(18 \quad 18\)

Enter 1 1/18

\section*{15) Problem \#PRAJDH4 "PRAJDH4 - Adding Mixed Numbers"}

Find the sum:
\[
\begin{gathered}
3 \\
7- \\
5
\end{gathered}+\frac{9}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

ป \(131 / 2\)

\section*{Hints:}
- Notice 5 is a factor of \(\mathbf{1 0}\).
\[
7 \frac{3}{5}+5 \frac{9}{10}
\]

Because 5 is a factor of \(\mathbf{1 0}\), the least common denominator is \(\mathbf{1 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of 10: multiply its numerator and denominator by \(\mathbf{1 0 / 5 = 2}\) (note: \(5^{*} 2=10\) ):
\(7 \frac{3 * 2}{5 * 2}+5 \frac{9}{10}=7 \frac{6}{10}+5 \frac{9}{10}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
7 \frac{6}{10}+5 \frac{9}{10}=(7+5) \frac{6+9}{10}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(7+5) \frac{6+9}{10} & =12 & \frac{15}{10} \\
& =12+1 & 5 / 10 \\
& =13 & 1 / 2
\end{array}
\]
16) Problem \#PRAJEES "PRAJEES - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
1 & 1 \\
10- & -3- \\
2
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

」 \(71 / 6\)

\section*{Hints:}
- The denominators 2 and 3 have no common factors greater than 1.
\begin{tabular}{rr}
1 & 1 \\
\(10-\) & \(3-\) \\
2 & 3
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{1 * 3}{2 * 3}-3 \frac{1 * 2}{3 * 2}=10-3-3-\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

3-2 1
\((10-3) \frac{-}{6}=7-\)

Enter 7 1/6

\section*{17) Problem \#PRAJEBG "PRAJEBG - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\(10 \stackrel{1}{2}-6 \frac{5}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
」 \(37 / 8\)

\section*{Hints:}
- Notice 2 is a factor of 8 .
\[
\begin{array}{rr}
1 & 5 \\
10- & 6 \frac{1}{2}
\end{array}
\]

Because 2 is a factor of \(\mathbf{8}\), the least common denominator is \(\mathbf{8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 8 : multiply its numerator and denominator by \(\mathbf{8 / 2 = 4}\) (note: \(2 * 4=8\) ):
\[
10 \frac{1^{*} 4}{2^{*} * 4}-6 \frac{5}{-}=10-6 \frac{4}{-}=-6
\]


Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+8/8


Next, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{12}{8}-6 \frac{5}{8}=(9-6) \frac{12-5}{8}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((9-6) \frac{12-5}{8}=3 \frac{7}{8}\)

Enter 3718
18) Problem \#PRAJEBE "PRAJEBE - 224053 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{rr}
1 & 5 \\
\(10-\) & \(3-\) \\
2 & 8
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
」 \(67 / 8\)

\section*{Hints:}
- Notice 2 is a factor of 8 .
\[
\begin{array}{rr}
1 & 5 \\
10- & -3- \\
2 & 8
\end{array}
\]

Because 2 is a factor of \(\mathbf{8}\), the least common denominator is \(\mathbf{8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 8 : multiply its numerator and denominator by \(\mathbf{8 / 2 = 4}\) (note: \(2 * 4=8\) ):
\(10 \frac{1 * 4}{2 * 4}-3 \frac{5}{8}=10 \frac{4}{-}-3 \frac{5}{8}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+8/8


Next, group the whole number terms and put both fractions together over the common denominator:
```

912-35 = (9-3) 12-5
8 8 8

```

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(9-3) \(\frac{12-5}{8}=6 \frac{7}{8}\)

Enter 6718

\section*{19) Problem \#PRAJDMG "PRAJDMG - Adding Mixed Numbers"}

Find the sum:
\[
2 \frac{1}{6}+2 \frac{2}{5}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

417/30

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\[
\begin{array}{r}
1 \\
2- \\
6
\end{array}+\frac{2}{5}
\]

Because the denominators have no common factors, find the least common denominator by
multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
2 \frac{1 * 5}{6 * 5}+2 \frac{2 * 6}{5 * 6}=2 \frac{5}{30}+2 \frac{12}{30}
\]

Next, group the numerator and whole numbers:
\[
25+212=(2+2) 5+12
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(2+2) \frac{5+12}{30}=4 \frac{17}{30}
\]

Enter 4 17/30

\section*{20) Problem \#PRAJD97 "PRAJD97-224053 - Subtracting Mixed Numbers"}

Find the difference:
\[
10 \frac{4}{11}-2 \frac{7}{22}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

」 \(81 / 22\)

\section*{Hints:}
- Notice 11 is a factor of 22.
\(10 \frac{4}{11}-2 \frac{7}{22}\)

Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by \(\mathbf{2 2} / \mathbf{1 1}=2\) (note: \(11 * 2=22\) ):


Since the second numerator is not greater than the first, we do not have to borrow.
\[
10{\underset{22}{8}-2 \frac{7}{-}}_{22}
\]

Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{8}{22}-2 \frac{7}{22}=(10-2) \frac{8-7}{22}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((10-2) \frac{8-7}{22}=8 \frac{1}{22}\)

Enter 8 1/22
21) Problem \#PRAJDMH "PRAJDMH - Adding Mixed Numbers"

Find the sum:
\[
10 \frac{3}{4}+6 \frac{7}{12}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(171 / 3\)

\section*{Hints:}
- Notice 4 is a factor of \(\mathbf{1 2}\).
\[
10-6 \frac{7}{-}
\]
\(4 \quad 12\)


Because 4 is a factor of \(\mathbf{1 2}\), the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of 12: multiply its numerator and denominator by \(12 / 4=3\) (note: \(4 * 3=12\) ):
\[
10 \frac{3^{* 3}}{4 * 3}+6 \frac{7}{12}=10 \frac{9}{12}+6 \frac{7}{12}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
10 \frac{9}{12}+6 \frac{7}{12}=(10+6) \frac{9+7}{12}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(10+6) \frac{9+7}{12} & =16 & \frac{16}{12} \\
& =16+1 & 4 / 12 \\
& =17 & 1 / 3
\end{array}
\]

Enter 17 1/3

\section*{22) Problem \#PRAJD8W "PRAJD8W - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\[
10-5 \frac{3}{4}-5 \frac{5}{12}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(51 / 3\)

\section*{Hints:}
- Notice 4 is a factor of 12.
\(10 \frac{3}{4}-5 \frac{5}{12}\)

Because 4 is a factor of \(\mathbf{1 2}\), the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of 12: multiply its numerator and

\(10 \frac{3 * 3}{4 * 3}-5 \frac{5}{12}=10 \frac{9}{12}-5 \frac{5}{12}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\[
109-55=(10-5) 9-5
\]

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlr}
\((10-5) \frac{9-5}{12}\) & \(=5 \frac{4}{12}\) \\
& \(=5 \quad 1 / 3\)
\end{tabular}

Enter 5 1/3

\section*{23) Problem \#PRAJDM2 "PRAJDM2 - Adding Mixed Numbers"}

Find the sum:
\[
6 \stackrel{5}{-}+4 \stackrel{7}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
- 11 29/72

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
6
8
8

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(6 \frac{5 * 9}{\mathbf{8}^{* 9}}+4 \frac{7 * 8}{\mathbf{9 * 8}}=6 \frac{45}{72}+4 \frac{56}{72}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(6+4) \frac{45+56}{72} & =10 \frac{101}{72} \\
& =10+1 & 29 / 72 \\
& =11 & 29 / 72
\end{array}
\]

Enter 11 29/72

\section*{24) Problem \#PRAJD9H "PRAJD9H - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\(7 \stackrel{4}{-}-3 \frac{5}{18}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(41 / 6\)

\section*{Hints:}
- Notice 9 is a factor of \(\mathbf{1 8}\).
\[
7-3 \frac{5}{9}-3
\]

Because 9 is a factor of 18 , the least common denominator is 18 .

- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 8}\) : multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\(7 \frac{4 * 2}{9 * 2}-3 \frac{5}{18}=7 \frac{8}{18}-3 \frac{5}{18}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common
denominator:
\(7 \frac{8}{18}-3 \frac{5}{18}=(7-3) \frac{8-5}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\begin{array}{rlc}
(7-3) \frac{8-5}{18} & =4 & \frac{3}{18} \\
& =4 & 1 / 6
\end{array}
\]

Enter 4 1/6
25) Problem \#PRAJDME "PRAJDME - Adding Mixed Numbers"

Find the sum:
\(1 \frac{8}{11}+10 \frac{3}{22}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
11 19/22

\section*{Hints:}
- Notice 11 is a factor of 22.


Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by \(22 / 11=2\) (note: \(11 * 2=22\) ):
\[
1 \frac{8^{* 2}}{11^{* 2}}+10 \frac{3}{22}=1 \frac{16}{22}+10 \frac{3}{22}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
1 \frac{16}{22}+10 \frac{3}{22}=(1+10) \frac{16+3}{22}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(1+10) \frac{16+3}{22}=11 \frac{19}{22}
\]

Enter 11 19/22
26) Problem \#PRAJDKV "PRAJDKV - Adding Mixed Numbers"

Find the sum:
\(9 \underset{7}{\frac{2}{7}}+1 \frac{7}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, 10 73/84

\section*{Hints:}
- The denominators 7 and \(\mathbf{1 2}\) have no common factors greater than 1 .
\(9 \frac{2}{7}+1 \frac{7}{12}\)

Because the denominators have no common factors, find the least common denominator by multiplying 7 by \(\mathbf{1 2}\) :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(9 \frac{2 * \mathbf{1 2}}{7 * 12}+1 \frac{7 * 7}{12 * 7}=9 \frac{24}{84}+1 \frac{49}{84}\)

Next, group the numerator and whole numbers:
\[
9{ }_{84}^{24}+1 \frac{49}{84}=(9+1) \frac{24+49}{84}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(9+1) \frac{24+49}{84}=10 \frac{73}{84}
\]

Enter 10 73/84

\section*{27) Problem \#PRAJDK3 "PRAJDK3 - Adding Mixed Numbers"}

Find the sum:
\(8 \stackrel{3}{-}+10 \stackrel{8}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{1919 / 72}\)

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\(8 \frac{3}{-}+10 \frac{8}{-}\)

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{3 * \mathbf{9}}{8 * \mathbf{9}}+10 \frac{8 * 8}{\mathbf{9 * 8}}=8 \frac{27}{72}+10 \frac{64}{72}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(8+10) \frac{27+64}{72} & =18 \frac{91}{72} \\
& =18+1 & 19 / 72 \\
& =19 & 19 / 72
\end{array}
\]

Enter 19 19/72

\section*{28) Problem \#PRAJEEK "PRAJEEK - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{rr}
1 & 2 \\
8- & - \\
2 & - \\
3
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{65 / 6}\)

\section*{Hints:}
- The denominators 2 and \(\mathbf{3}\) have no common factors greater than 1 .
\begin{tabular}{rrr}
1 & 2 \\
2 & - & - \\
3
\end{tabular}

Because the denominators have no common factors, find the least common denominator by
 multiplying 2 by 3:
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{1 * 3}{2 * 3}-1 \frac{2 * 2}{3 * 2}=8 \frac{3}{6}-1 \frac{4}{6}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: \(8=7+1=\) 7+6/6

Next, group the numerator and whole numbers:
\(7_{6}^{9}-1\)\begin{tabular}{c}
4 \\
6
\end{tabular}\(=(7-1) \frac{9-4}{6}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:


Enter 6 5/6

\section*{29) Problem \#PRAJDJT "PRAJDJT - Adding Mixed Numbers"}

Find the sum:
\[
8 \frac{3}{7}+1 \frac{5}{14}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 911 / 14\)

\section*{Hints:}

- Notice 7 is a factor of 14.
\[
8 \frac{3}{7}+1 \frac{5}{14}
\]

Because 7 is a factor of 14, the least common denominator is 14 .
- Convert the first fraction to an equivalent fraction with a denominator of 14 : multiply its numerator and denominator by \(\mathbf{1 4 / 7 = 2}\) (note: \(7^{*} 2=14\) ):
\(8 \frac{3^{*} 2}{7 * 2}+1 \frac{5}{14}=8 \frac{6}{14}+1 \frac{5}{14}\)

Then, group the whole number terms and put both fractions together over the common
denominator:
\(8 \frac{6}{14}+1 \frac{5}{14}=(8+1) \frac{6+5}{14}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(8+1) \frac{6+5}{14}=9 \frac{11}{14}
\]

Enter 9 11/14
30) Problem \#PRAJDKA "PRAJDKA - Adding Mixed Numbers"

Find the sum:
\[
5 \frac{6}{11}+2 \frac{3}{22}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{715 / 22}\)

\section*{Hints:}
- Notice 11 is a factor of 22.
\[
5-\frac{6}{-}+2-\frac{3}{-}
\]


Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by 22/11=2 (note: \(11 * 2=22\) ):
\[
5 \frac{6 * 2}{11 * 2}+2 \frac{3}{22}=5 \frac{12}{22}+2 \frac{3}{22}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
5 \frac{12}{22}+2 \frac{3}{22}=(5+2) \frac{12+3}{22}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(5+2) \frac{12+3}{22}=7 \frac{15}{22}
\]

Enter 7 15/22

\section*{31) Problem \#PRAJDQB "PRAJDQB - Adding Mixed Numbers"}

Find the sum:
\[
\begin{gathered}
7 \\
8-7 \\
8
\end{gathered} \quad \begin{gathered}
7 \\
-
\end{gathered}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, 16 47/72

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
7
\(8-\)
8

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{7 * 9}{8 * 9}+7 \frac{7 * 8}{9 * 8}=8 \frac{63}{72}+7 \frac{56}{72}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(8+7) \frac{63+56}{72} & =15 & \frac{119}{72} \\
& =15+1 & 47 / 72 \\
& =16 & 47 / 72
\end{array}
\]

Enter \(1647 / 72\)

\section*{32) Problem \#PRAJECZ "PRAJECZ - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
3 \frac{5}{11}-1 \frac{9}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

161/110

\section*{Hints:}
- The denominators \(\mathbf{1 1}\) and \(\mathbf{1 0}\) have no common factors greater than 1 .
\[
3 \frac{5}{11}-1 \frac{9}{10}
\]

Because the denominators have no common factors, find the least common denominator by
 multiplying 11 by \(\mathbf{1 0}\) :
\[
11 * 10=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
3 \frac{5 * \mathbf{1 0}}{11^{*} \mathbf{1 0}}-1 \frac{9^{* 11}}{10^{* 11}}=3 \frac{50}{\mathbf{1 1 0}}-1 \frac{99}{\mathbf{1 1 0}}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 3 , and represent it in fractional form using the common denominator: \(3=2+1=\) \(2+110 / 110\)

\section*{110 \\ 110}

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((2-1) \frac{160-99}{110}=1 \frac{61}{110}\)

Enter 1 61/110
33) Problem \#PRAJD9G "PRAJD9G - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
10 \frac{2}{3}-1 \frac{1}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
• \(91 / 2\)

\section*{Hints:}

- Notice 3 is a factor of 6.
\[
10-\frac{2}{3}-1 \frac{1}{6}
\]

Because 3 is a factor of 6, the least common denominator is \(\mathbf{6}\).
- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by \(6 / 3=2\) (note: \(3 * 2=6\) ):
\[
0 \frac{2 * 2}{3 * 2}-1 \frac{1}{6}=10-1 \frac{4}{6}-1
\]

Since the second numerator is not greater than the first, we do not have to borrow.

Next, group the whole number terms and put both fractions together over the common denominator:
\(10-\frac{4}{6}-1 \frac{1}{6}=(10-1) \frac{4-1}{6}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rl}
\((10-1) \frac{4-1}{6}\) & \(=9 \quad \frac{3}{6}\) \\
& \(=9 \quad 1 / 2\)
\end{tabular}

Enter 9 1/2

\section*{34) Problem \#PRAJDHU "PRAJDHU - Adding Mixed Numbers"}

Find the sum:
\(2 \frac{3}{7}+1 \frac{1}{14}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{1 / 2}\)

Hints:
- Notice 7 is a factor of \(\mathbf{1 4}\).
\[
2 \frac{3}{7}+1 \frac{1}{14}
\]

Because 7 is a factor of 14, the least common denominator is 14 .
- Convert the first fraction to an equivalent fraction with a denominator of 14: multiply its numerator and denominator by \(14 / 7=2\) (note: \(7 * 2=14\) ):
\(2 \frac{3^{*} 2}{7 * 2}+1 \frac{1}{14}=2 \frac{6}{14}+1 \frac{1}{14}\)
denominator:
\(2 \frac{6}{14}+1 \frac{1}{14}=(2+1) \frac{6+1}{14}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlc}
(2+1) \frac{6+1}{14} & =3 & \frac{7}{14} \\
& =3 & 7 / 14 \\
& =3 & 1 / 2
\end{array}
\]

Enter 3 1/2
35) Problem \#PRAJECF "PRAJECF - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
11 \begin{array}{r}
1 \\
- \\
5
\end{array} \frac{1}{2}-
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

\section*{5 7/10}

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\[
11 \begin{array}{cr}
1 \\
- & 1 \\
-
\end{array}
\]


Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(11 \frac{1 * 2}{5 * 2}-5 \frac{1 * 5}{2 * 5}=11 \frac{2}{10}-5 \frac{5}{10}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 11, and represent it in fractional form using the common denominator: \(11=10+1=\)
\(10+10 / 10\)


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((10-5) \frac{12-5}{10}=5 \frac{7}{10}\)

Enter \(57 / 10\)
36) Problem \#PRAJD9S "PRAJD9S - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
8 \frac{3}{10}-1 \frac{1}{30}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\(\sqrt{74 / 15}\)

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\[
8 \frac{3}{10}-1 \frac{1}{30}
\]

Because 10 is a factor of 30, the least common denominator is \(\mathbf{3 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{3 0}\) : multiply its numerator and denominator by \(\mathbf{3 0} / \mathbf{1 0 = 3}\) (note: \(10 * 3=30\) ):
\[
8 \frac{3 * 3}{10 * 3}-1 \frac{1}{30}=8 \frac{9}{30}-1 \frac{1}{30}
\]

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(8 \frac{9}{30}-1 \frac{1}{30}=(8-1) \frac{9-1}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\(\begin{array}{rlrl}(8-1) \frac{9-1}{30} & =7 & \frac{8}{30} \\ & =7 & 4 / 15\end{array}\)
Enter 7 4/15
37) Problem \#PRAJDPG "PRAJDPG - Adding Mixed Numbers"

Find the sum:
\[
\stackrel{3}{2-}+\begin{gathered}
7 \\
8
\end{gathered}
\]

Answers must be in the formo of a reduced proper fraction (example 2/7) or a mixed number with a space \({ }_{\text {and }}^{\text {and }}\). between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 411 / 72\)

\section*{Hints:}
- The denominators 8 and \(\mathbf{9}\) have no common factors greater than 1 .
\[
\begin{array}{r}
3 \\
2- \\
8
\end{array}+\begin{array}{r}
7 \\
9
\end{array}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(2 \frac{3 * 9}{8 * 9}+1 \frac{7 * 8}{9 * 8}=2 \frac{27}{72}+1 \frac{56}{72}\)

Next, group the numerator and whole numbers:
\[
2 \frac{27}{72}+1 \frac{56}{72}=(2+1) \frac{27+56}{72}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
(2+1) \frac{27+56}{72} & =3 \frac{83}{72} \\
& =3+1 \\
& 11 / 72 \\
& =4
\end{aligned} \frac{11 / 72}{}
\]

Enter 4 11/72

\section*{38) Problem \#PRAJDH2 "PRAJDH2 - Adding Mixed Numbers"}

Find the sum:
\[
\underset{9}{10-}+\frac{1}{-} \frac{1}{18}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space
between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
, \(1217 / 18\)

\section*{Hints:}
- Notice 9 is a factor of 18 .
\[
\underset{9}{9-}+2 \frac{1}{18}
\]

Because 9 is a factor of 18, the least common denominator is 18 .
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by 18/9=2 (note: \(9 * 2=18\) ):
\[
108 * 2+21=1016+21
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{16}{18}+2 \frac{1}{18}=(10+2) \frac{16+1}{18}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(10+2) \frac{16+1}{18}=12 \frac{17}{18}
\]

Enter 12 17/18
39) Problem \#PRAJEC6 "PRAJEC6 - 224054 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{rr}
1 & 4 \\
\(10-\) & \(-3-\) \\
6 & 5
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{611 / 30}\)
https://whindats:nents.org/build/print/sequence/809734?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
- The denominators 6 and 5 have no common factors greater than 1 .
\begin{tabular}{rr}
1 & 4 \\
6 & - \\
6
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(101 * 5-34 * 6=105-324\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) \(9+30 / 30\)
\(9_{30}^{\frac{30+5}{24}}-3_{30}^{24}\)

Next, group the numerator and whole numbers:
\(9{ }_{30}^{35}-3 \frac{24}{30}=(9-3) \frac{35-24}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(9-3) \frac{35-24}{30}=6 \frac{11}{30}
\]

Enter 6 11/30
40) Problem \#PRAJEAS "PRAJEAS - 224053 - Subtracting Mixed Numbers"

Find the difference:

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

ل \(31 / 6\)

\section*{Hints:}
- Notice 4 is a factor of \(\mathbf{1 2}\).
\[
10 \frac{1}{4}-7 \frac{1}{12}
\]

Because 4 is a factor of 12, the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 2}\) : multiply its numerator and
denominator by 12/4=3 (note: \(4 * 3=12\) ):
\(10 \frac{1 * 3}{4 * 3}-7 \frac{1}{12}=10 \frac{3}{12}-7 \frac{1}{12}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{3}{12}-7 \frac{1}{12}=(10-7) \frac{3-1}{12}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
```

(10-7) $\begin{aligned} \frac{3-1}{12} & =3 \frac{2}{12} \\ & =3 \quad 1 / 6\end{aligned}$

```

Enter 3 1/6
41) Problem \#PRAJEDG "PRAJEDG - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{r}
1 \\
6-2- \\
2 \\
2
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
- \(35 / 6\)

\section*{Hints:}
- The denominators 2 and 3 have no common factors greater than 1 .
\(6 \frac{1}{-}-2 \frac{2}{2}\)

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(6 \frac{1 * 3}{2 * 3}-2 \frac{2 * 2}{3 * 2}=6 \frac{3}{6}-2 \frac{4}{6}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 6 , and represent it in fractional form using the common denominator: \(6=5+1=\) 5+6/6


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

9-4 5

6
6

Enter 3 5/6
42) Problem \#PRAJDM8 "PRAJDM8 - Adding Mixed Numbers"

Find the sum:
\[
6 \frac{3}{10}+9 \frac{5}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
\(\sqrt{ } 1583 / 110\)

\section*{Hints:}
- The denominators \(\mathbf{1 0}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\(6 \frac{3}{10}+9 \frac{5}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:
\[
10 * 11=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
6 \frac{3^{*} \mathbf{1 1}}{10 * \mathbf{1 1}}+9 \frac{5^{*} 10}{11^{*} \mathbf{1 0}}=6 \frac{33}{\mathbf{1 1 0}}+9 \frac{50}{\mathbf{1 1 0}}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:

\[
(6+9) \frac{}{110}=15 \frac{}{110}
\]

Enter 15 83/110

\section*{43) Problem \#PRAJDQP "PRAJDQP - Adding Mixed Numbers"}

Find the sum:
\[
\begin{gathered}
\frac{1}{5-}+3- \\
6
\end{gathered}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 823 / 30\)

\section*{Hints:}
- The denominators \(\mathbf{6}\) and \(\mathbf{5}\) have no common factors greater than 1 .
\(5 \frac{1}{6}+3 \frac{3}{5}\)

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
5 \frac{1 * 5}{6 * 5}+3 \frac{3 * 6}{5 * 6}=5 \frac{5}{30}+3 \frac{18}{30}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
\[
(5+3) \frac{5+18}{30}=8 \frac{23}{30}
\]

Enter 8 23/30

\section*{44) Problem \#PRAJEDN "PRAJEDN - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{rr}
5 \\
2- & 1 \\
6
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 119 / 30\)

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\(2 \underset{6}{5}-1 \frac{1}{5}\)

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(2 \frac{5 * 5}{6 * 5}-1 \frac{1 * 6}{5 * 6}=2 \frac{25}{30}-1 \frac{6}{30}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\(2_{30}^{25}-1 \frac{6}{30}\)

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(2-1) \frac{25-6}{30}=1 \frac{19}{30}
\]

Enter 1 19/30

Find the difference:
\[
\begin{array}{rr}
4 & 1 \\
7- \\
5 & - \\
2
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 53 / 10\)

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\begin{tabular}{rr}
4 & 1 \\
5 & \(-2-\) \\
2
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
7 \frac{4^{* 2}}{5 * 2}-2 \frac{1 * 5}{2 * 5}=7 \frac{8}{10}-2 \frac{5}{10}
\]

Since the second numerator is not greater than the first, we do not have to borrow.

Next, group the numerator and whole numbers:
\[
7 \frac{8}{10}-2 \frac{5}{10}=(7-2) \frac{8-5}{10}
\]

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(7-2) \frac{8-5}{10}=5 \frac{3}{10}
\]

\section*{46) Problem \#PRAJDMZ "PRAJDMZ - Adding Mixed Numbers"}

Find the sum:
\[
\begin{gathered}
1 \\
8- \\
4
\end{gathered}+\frac{2}{7}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(1015 / 28\)

\section*{Hints:}
- The denominators 4 and 7 have no common factors greater than 1 .
\(8 \frac{1}{4}+2 \frac{2}{7}\)

Because the denominators have no common factors, find the least common denominator by multiplying 4 by 7 :
\[
4 * 7=28
\]

Find equivalent fractions using the denominator 28.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:


Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(8+2) \frac{7+8}{28}=10 \frac{15}{28}
\]
47) Problem \#PRAJD94 "PRAJD94-224053 - Subtracting Mixed Numbers"

Find the difference:
\[
7-5 \frac{5}{6}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
v \(25 / 9\)

\section*{Hints:}
- Notice 6 is a factor of 18.
\[
7 \frac{5}{6}-5 \frac{5}{18}
\]

Because 6 is a factor of 18, the least common denominator is 18.
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):
\[
7 \frac{5 * 3}{6 * 3}-5 \frac{5}{18}=7 \frac{15}{18}-5 \frac{5}{18}
\]

\footnotetext{

}
\({ }_{7}^{7}-{ }^{15}-5{ }_{18}\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(7 \frac{15}{18}-5 \frac{5}{18}=(7-5) \frac{15-5}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((7-5) 15-5=2 \quad 10\)
\(18 \quad 18\)
= \(25 / 9\)
Enter 2 5/9
48) Problem \#PRAJEDC "PRAJEDC - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{cc}
3 \\
9 \stackrel{1}{-}-3 \\
9
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
/ 6 19/72

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\begin{tabular}{rr}
3 & 1 \\
\(9-\) & \(3-\) \\
9
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent
fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:

\(9 \frac{3 * 9}{8 * 9}-3 \frac{1 * 8}{9 * 8}=9 \frac{27}{72}-3 \frac{8}{72}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:
\[
927-38=(9-3) 27-8
\]

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(9-3) \frac{27-8}{72}=6 \frac{19}{72}
\]

Enter 6 19/72

\section*{49) Problem \#PRAJDKY "PRAJDKY - Adding Mixed Numbers"}

Find the sum:
\[
\begin{gathered}
3 \\
2- \\
5
\end{gathered} \frac{1}{2}+10
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 131 / 10\)
Hints:

PSABKKK 2.1


The denominators 5 and \(\mathbf{2}\) have no common factors greater than 1 .
\(2 \frac{3}{-}+10 \frac{1}{-}\)

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).

\section*{PSABKKK 2.2}

-
Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:


Next, group the numerator and whole numbers:
\[
2 \frac{6}{10}+10 \frac{5}{10}=(2+10) \frac{6+5}{10}
\]

Now, sum the numerator and whole numbers.

Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(2+10) \frac{6+5}{10} & =12 & \frac{11}{10} \\
& =12+1 & 1 / 10 \\
& =13 & 1 / 10
\end{array}
\]

Enter 13 1/10

\section*{50) Problem \#PRAJDK6 "PRAJDK6 - Adding Mixed Numbers"}

Find the sum:
\(6 \frac{1}{6}+10 \frac{3}{5}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
v \(1623 / 30\)

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\[
6 \frac{1}{6}+10 \frac{3}{5}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30 .

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent
fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(6 \frac{1 * 5}{6 * 5}+10 \frac{3 * 6}{5 * 6}=6 \frac{5}{30}+10 \frac{18}{30}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(6+10) \frac{5+18}{30}=16 \frac{23}{30}
\]

Enter 16 23/30
51) Problem \#PRAJD95 "PRAJD95-224053 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
1 & 1 \\
2- & -1- \\
2 & 8
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
/ \(13 / 8\)

\section*{Hints:}
- Notice 2 is a factor of 8 .
\[
2 \frac{1}{2}-1 \frac{1}{8}
\]

Because 2 is a factor of \(\mathbf{8}\), the least common denominator is \(\mathbf{8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 8 : multiply its numerator and denominator by \(\mathbf{8 / 2 = 4}\) (note: \(2 * 4=8\) ):
\(2 \frac{1 * 4}{2 * 4}-1 \frac{1}{8}=2 \frac{4}{8}-1 \frac{1}{8}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(\begin{array}{lll}8 & 8 & 8\end{array}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((2-1) \frac{4-1}{8}=1 \frac{3}{8}\)

Enter 1 3/8
52) Problem \#PRAJD99 "PRAJD99-224053 - Subtracting Mixed Numbers"

Find the difference:
\[
10-\frac{5}{6}-1 \frac{5}{18}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
- \(95 / 9\)

\section*{Hints:}
- Notice 6 is a factor of 18.
\(10 \stackrel{5}{-}-1 \frac{5}{18}\)

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and

\[
10 \frac{5 * 3}{6 * 3}-1 \frac{5}{18}=10 \frac{15}{18}-1 \frac{5}{18}
\]

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlr}
\((10-1) \frac{15-5}{18}\) & \(=9\) & \(\frac{10}{18}\) \\
& \(=9\) & \(5 / 9\)
\end{tabular}

Enter 9 5/9

\section*{53) Problem \#PRAJEC8 "PRAJEC8 - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{rr}
1 \\
10- \\
9 & -8 \frac{5}{7} \\
\hline
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(125 / 63\)

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\(10-8 \frac{5}{9}-8\)

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :

Find equivalent fractions using the denominator 63.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{1 * 7}{9 * 7}-8 \frac{5 * 9}{7 * 9}=10 \frac{7}{63}-8 \frac{45}{63}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+63/63

Next, group the numerator and whole numbers:
\(9 \frac{70}{63}-8 \frac{45}{63}=(9-8) \frac{70-45}{63}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((9-8) \frac{70-45}{63}=1 \frac{25}{63}\)

Enter 1 25/63
54) Problem \#PRAJDKF "PRAJDKF - Adding Mixed Numbers"

Find the sum:
\[
\begin{gathered}
5 \\
6 \\
6
\end{gathered}+8 \frac{5}{18}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(151 / 9\)

\section*{Hints:}

\(6 \frac{5}{6}+8 \frac{5}{18}\)

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(\mathbf{1 8 / 6 = 3}\) (note: \(6^{* 3} 3=18\) ):
\(6 \frac{5^{*} 3}{6 * 3}+8 \frac{5}{18}=6 \frac{15}{18}+8 \frac{5}{18}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\(6 \frac{15}{18}+\frac{8}{18} \quad=(6+8) \frac{15+5}{18}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(6+8) \frac{15+5}{18} & =14 & \frac{20}{18} \\
& =14+1 & 2 / 18 \\
& =15 & 1 / 9
\end{array}
\]

Enter 15 1/9
55) Problem \#PRAJD9W "PRAJD9W - 224053 - Subtracting Mixed Numbers"

Find the difference:
\(7 \stackrel{1}{-}-1 \frac{11}{12}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
\(51 / 3\)
Hints:
- Notice 4 is a factor of \(\mathbf{1 2}\).
\[
7 \frac{1}{4}-1 \frac{11}{12}
\]

Because 4 is a factor of 12, the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of 12 : multiply its numerator and denominator by \(\mathbf{1 2 / 4 = 3}\) (note: \(4 * 3=12\) ):
\(7 \frac{1 * 3}{4 * 3}-1 \frac{11}{12}=7 \frac{3}{12}-1 \frac{11}{12}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 7 , and represent it in fractional form using the common denominator: \(7=6+1=\) \(6+12 / 12\)


Next, group the whole number terms and put both fractions together over the common denominator:
\(6 \frac{15}{12}-1 \frac{11}{12}=(6-1) \frac{15-11}{12}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rl}
\((6-1) \frac{15-11}{12}\) & \(=5 \frac{4}{12}\) \\
& \(=5 \quad 1 / 3\)
\end{tabular}

Enter 5 1/3
56) Problem \#PRAJDKN "PRAJDKN - Adding Mixed Numbers"

Find the sum:
\[
3 \frac{5}{6}+8 \frac{5}{18}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
v \(121 / 9\)

\section*{Hints:}
- Notice \(\mathbf{6}\) is a factor of \(\mathbf{1 8}\).

```

            3-+8-
            6
                        18
    ```

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):
\(3 \frac{5 * 3}{6 * 3}+8 \frac{5}{18}=3 \frac{15}{18}+8 \frac{5}{18}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
315+85=(3+8) 15+5
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(3+8) \frac{15+5}{18} & =11 & \frac{20}{18} \\
& =11+1 & 2 / 18 \\
& =12 & 1 / 9
\end{array}
\]

Enter 12 1/9
57) Problem \#PRAJEAD "PRAJEAD - 224053 - Subtracting Mixed Numbers"

Find the difference:
\(5 \stackrel{3}{-}-4 \frac{13}{24}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

5/6

\section*{Hints:}
- Notice 8 is a factor of 24.
\[
5 \frac{3}{8}-4 \frac{13}{24}
\]

Because 8 is a factor of 24, the least common denominator is 24 .
 denominator by \(\mathbf{2 4 / 8 = 3}\) (note: \(8 * 3=24\) ):
\(5 \frac{3 * 3}{8^{* 3}}-4 \frac{13}{24}=5 \frac{9}{24}-4 \frac{13}{24}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 5 , and represent it in fractional form using the common denominator: \(5=4+1=\) 4+24/24
\(4{ }_{24}^{24+9}-4 \frac{13}{24}\)

Next, group the whole number terms and put both fractions together over the common
denominator:
\(4 \frac{33}{24}-4 \frac{13}{24}=(4-4) \frac{33-13}{24}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rl}
\((4-4) \frac{33-13}{24}\) & \(=0 \quad \frac{20}{24}\) \\
& \(=\quad 5 / 6\)
\end{tabular}

Enter 5/6
58) Problem \#PRAJEBM "PRAJEBM - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
10 \frac{1}{10}-9 \frac{13}{30}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(2 / 3\)

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\[
10 \frac{1}{10}-9 \frac{13}{30}
\]

Because 10 is a factor of 30, the least common denominator is \(\mathbf{3 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of 30: multiply its numerator and denominator by \(\mathbf{3 0 / 1 0 = 3}\) (note: \(10 * 3=30\) ):
\[
10 \frac{1 * 3}{10 * 3}-9 \frac{13}{30}=10 \frac{3}{30}-9 \frac{13}{30}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) \(9+30 / 30\)


Next, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{33}{30}-9 \frac{13}{30}=(9-9) \frac{33-13}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
```

        33-13 20
    $(9-9)-\frac{}{30}=0$
$=2 / 3$

```

Enter 2/3
59) Problem \#PRAJEBJ "PRAJEBJ - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
4 \frac{3}{8}-2 \frac{1}{24}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(21 / 3\)

\section*{Hints:}
- Notice 8 is a factor of \(\mathbf{2 4}\).

```

4--2-
84

```

Because 8 is a factor of 24, the least common denominator is 24 .
- Convert the first fraction to an equivalent fraction with a denominator of 24 : multiply its numerator and denominator by \(\mathbf{2 4 / 8 = 3}\) (note: \(8 * 3=24\) ):
\[
4 \frac{3 * 3}{8 * 3}-2 \frac{1}{24}=4 \frac{9}{24}-2 \frac{1}{24}
\]

Since the second numerator is not greater than the first, we do not have to borrow.
49-21

Next, group the whole number terms and put both fractions together over the common denominator:
\(4 \frac{9}{24}-2 \frac{1}{24}=(4-2) \frac{9-1}{24}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(4-2) \begin{tabular}{rlr}
\(\frac{9-1}{24}\) & \(=2 \quad \frac{8}{24}\) \\
& \(=2 \quad 1 / 3\)
\end{tabular}

Enter 2 1/3
60) Problem \#PRAJDKU "PRAJDKU - Adding Mixed Numbers"

Find the sum:
\(9 \frac{4}{7}+10 \frac{11}{14}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
\(\sqrt{205 / 14}\)

\section*{Hints:}
- Notice 7 is a factor of \(\mathbf{1 4}\).

```

            4-11
            9-+10-
            7 14
    ```

Because 7 is a factor of 14, the least common denominator is 14 .
- Convert the first fraction to an equivalent fraction with a denominator of 14 : multiply its numerator and denominator by \(14 / 7=2\) (note: \(7 * 2=14\) ):
\(9 \frac{4 * 2}{7 * 2}+10 \frac{11}{14}=9 \frac{8}{14}+10 \frac{11}{14}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
98+1011=(9+10) 8+11
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlc}
(9+10) \frac{8+11}{14} & =19 & \frac{19}{14} \\
& =19+1 & 5 / 14 \\
& =20 & 5 / 14
\end{array}
\]

Enter 20 5/14

\section*{61) Problem \#PRAJDPU "PRAJDPU - Adding Mixed Numbers"}

Find the sum:
\(\stackrel{1}{5-}+\frac{4}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

6 23/28

\section*{Hints:}
- The denominators 4 and 7 have no common factors greater than 1 .
\(5 \stackrel{1}{4}+\underset{7}{4}\)

Because the denominators have no common factors, find the least common denominator by

\[
4 * 7=28
\]

Find equivalent fractions using the denominator 28.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(5 \frac{1 * 7}{4 * 7}+1 \frac{4 * 4}{7 * 4}=5 \frac{7}{28}+1 \frac{16}{28}\)

Next, group the numerator and whole numbers:
\begin{tabular}{c}
57 \\
28
\end{tabular}\(\underset{28}{116}=(5+1) \frac{7+16}{28}\)

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(5+1) \frac{7+16}{28}=6 \frac{23}{28}
\]

Enter 6 23/28

\section*{62) Problem \#PRAJDNC "PRAJDNC - Adding Mixed Numbers"}

Find the sum:
\[
4 \frac{9}{10}+2 \frac{13}{30}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(71 / 3\)

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\[
4 \frac{9}{10}+2 \frac{13}{30}
\]

Because 18 is a factor of 30 , the least common denominator is 30 .
- Convert the first fraction to an equivalent fraction with a denominator of 30: multiply its numerator and denominator by \(\mathbf{3 0} / \mathbf{1 0}=3\) (note: \(10 * 3=30\) ):
\[
4 \frac{9 * 3}{10 * 3}+2 \frac{13}{30}=4 \frac{27}{30}+2 \frac{13}{30}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
4 \frac{27}{30}+2 \frac{13}{30}=(4+2) \frac{27+13}{30}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(4+2) \frac{27+13}{30} & =6 \frac{40}{30} \\
& =6+1 & 10 / 30 \\
& =7 & 1 / 3
\end{array}
\]

Enter 7 1/3

\section*{63) Problem \#PRAJEDE "PRAJEDE - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\(10 \stackrel{5}{-}-8 \frac{5}{7}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(153 / 63\)

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\(10-5-5 \frac{5}{-}\)

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63 .

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
10 \frac{5 * 7}{9 * 7}-8 \frac{5 * 9}{7 * 9}=10 \frac{35}{63}-8 \frac{45}{63}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+63/63


Next, group the numerator and whole numbers:
\(9{ }_{63}^{98}-8 \frac{45}{63}=(9-8) \frac{98-45}{63}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((9-8) \frac{98-45}{63}=1 \frac{53}{63}\)

Enter 1 53/63

\section*{64) Problem \#PRAJED8 "PRAJED8 - 224054 - Subtracting Mixed Numbers"}

Find the difference:
1
\(8-\)
6 \(\frac{3}{5}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

6 17/30

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
1
\(8-\)
\(-1-\)


Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{1 * 5}{6 * 5}-1 \frac{3 * 6}{5 * 6}=8 \frac{5}{30}-1 \frac{18}{30}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: \(8=7+1=\)
\(7_{30}^{\frac{30+5}{}-1 \frac{18}{30}}\)

Next, group the numerator and whole numbers:
\({ }_{7} \frac{35}{30}-1 \frac{18}{30}=(7-1) \frac{35-18}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

35-18 \(\quad 17\)
\((7-1) \frac{}{30}=6 \quad \frac{-}{30}\)

Enter 6 17/30

\section*{65) Problem \#PRAJDNV "PRAJDNV - Adding Mixed Numbers"}

Find the sum:
\[
\begin{gathered}
1 \\
7- \\
9
\end{gathered} \quad \begin{gathered}
6 \\
9
\end{gathered}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, 12 61/63

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\(7 \frac{1}{-9}+5 \frac{6}{7}\)

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent
fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(7 \frac{1 * 7}{9 * 7}+5 \frac{6 * 9}{7 * 9}=7 \frac{7}{63}+5 \frac{54}{63}\)

Next, group the numerator and whole numbers:
\({ }_{7} \frac{7}{63}+5 \frac{54}{63}=(7+5) \frac{7+54}{63}\)

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(7+5) \frac{7+54}{63}=12 \frac{61}{63}
\]

Enter 12 61/63
66) Problem \#PRAJECN "PRAJECN - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{gathered}
2 \\
7- \\
3
\end{gathered} \frac{3}{-}
\]
 between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(511 / 12\)

\section*{Hints:}
- The denominators 3 and \(\mathbf{4}\) have no common factors greater than 1 .
7 \begin{tabular}{rr}
2 \\
3 & - \\
4
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 3 by 4 :
\[
3 * 4=12
\]

Find equivalent fractions using the denominator 12.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(7 \frac{2 * 4}{3 * 4}-1 \frac{3 * 3}{4 * 3}=7 \frac{8}{12}-1 \frac{9}{12}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 7 , and represent it in fractional form using the common denominator: \(7=6+1=\) \(6+12 / 12\)


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\frac{20-9}{12}=5 \frac{11}{12}
\]

Enter 5 11/12

67) Problem \#PRAJDHS "PRAJDHS - Adding Mixed Numbers"

Find the sum:
\[
\frac{1}{7-}+2 \frac{1}{5}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 93 / 10\)

\section*{Hints:}
- Notice 5 is a factor of \(\mathbf{1 0}\).
\[
7 \frac{1}{5}+2 \frac{1}{10}
\]

Because 5 is a factor of \(\mathbf{1 0}\), the least common denominator is \(\mathbf{1 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 0}\) : multiply its numerator and denominator by \(10 / 5=2\) (note: \(5 * 2=10\) ):
\(7 \frac{1 * 2}{5 * 2}+2 \frac{1}{10}=7 \frac{2}{10}+2 \frac{1}{10}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
7 \frac{2}{10}+2 \frac{1}{10}=(7+2) \frac{2+1}{10}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(7+2) \frac{2+1}{10}=9 \frac{3}{10}
\]

Enter 9 3/10

\section*{68) Problem \#PRAJEDH "PRAJEDH - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
8 \stackrel{2}{-}-4 \stackrel{1}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

39/10

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\(8 \frac{2}{5}-4 \frac{1}{2}\)

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator 10.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{2 * 2}{5 * 2}-4 \frac{1 * 5}{2 * 5}=8 \frac{4}{10}-4 \frac{5}{10}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8, and represent it in fractional form using the common denominator: \(8=7+1=\) 7+10/10
\(7_{10}^{\frac{10+4}{10}}-4\)\begin{tabular}{c}
5 \\
10
\end{tabular}

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((7-4) \frac{14-5}{10}=3 \frac{9}{10}\)
69) Problem \#PRAJECT "PRAJECT - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
10-9 \frac{7}{7}-9 \frac{7}{12}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

47/84

\section*{Hints:}
- The denominators 7 and 12 have no common factors greater than 1.
```

    1 7
    10--9-
7 12

```

Because the denominators have no common factors, find the least common denominator by multiplying 7 by 12:
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{1 * 12}{7 * 12}-9 \frac{7^{* 7}}{12^{*} 7}=10 \frac{12}{84}-9 \frac{49}{84}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+84/84


Next, group the numerator and whole numbers:
\({ }_{94}^{96}-9 \frac{49}{84}=(9-9) \frac{96-49}{84}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rl}
\((9-9) \frac{96-49}{84}\) & \(=0 \frac{47}{84}\) \\
& \(=\) \\
\hline \(7 / 84\)
\end{tabular}

Enter 47/84
70) Problem \#PRAJDMS "PRAJDMS - Adding Mixed Numbers"

Find the sum:
\[
\begin{gathered}
4 \\
3- \\
5
\end{gathered}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(73 / 10\)

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\(3 \frac{4}{5}+3 \frac{1}{2}\)

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(3 \frac{4 * 2}{5 * 2}+3 \frac{1 * 5}{2 * 5}=3 \frac{8}{10}+3 \frac{5}{10}\)

Next, group the numerator and whole numbers:
\(3 \frac{8}{10}+3 \frac{5}{10}=(3+3) \frac{8+5}{10}\)

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(3+3) \frac{8+5}{10} & =6 & \frac{13}{10} \\
& =6+1 & 3 / 10 \\
& =7 & 3 / 10
\end{array}
\]

Enter 7 3/10
71) Problem \#PRAJECH "PRAJECH - 224054 - Subtracting Mixed Numbers"

Find the difference:

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{29 / 30}\)

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\begin{tabular}{rr}
1 & 1 \\
\(7-\) & \(6-\) \\
6
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(7 \frac{1 * 5}{6 * 5}-6 \frac{1 * 6}{5 * 6}=7 \frac{5}{30}-6 \frac{6}{30}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 7 , and represent it in fractional form using the common denominator: \(7=6+1=\) \(6+30 / 30\)
```

    30+5 6
    6 - 6
    ```


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\begin{array}{rlc}
(6-6) \frac{35-6}{30} & =0 \frac{29}{30} \\
& =\quad 29 / 30
\end{array}
\]

\section*{72) Problem \#PRAJDP5 "PRAJDP5 - Adding Mixed Numbers"}

Find the sum:
\[
9 \frac{1}{12}+8 \frac{5}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(1771 / 132\)

\section*{Hints:}
- The denominators \(\mathbf{1 2}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\[
9 \frac{1}{12}+8 \frac{5}{11}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11 :
\[
12 * 11=132
\]

Find equivalent fractions using the denominator 132.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
9 \frac{1^{*} 11}{12 * 11}+8 \frac{5^{*} 12}{12}=9 \frac{11}{132}+8 \frac{60}{132}
\]

Next, group the numerator and whole numbers:
\[
9 \frac{11}{132}+8 \frac{60}{\mathbf{1 3 2}}=(9+8) \frac{11+60}{132}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(9+8) \frac{11+60}{132}=17 \frac{71}{132}
\]

\section*{73) Problem \#PRAJD9Y "PRAJD9Y - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\begin{tabular}{cr}
5 \\
\(8-\) & \(4-\frac{5}{18}\) \\
6
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(45 / 9\)

\section*{Hints:}
- Notice 6 is a factor of \(\mathbf{1 8}\).
\[
8 \frac{5}{6}-4 \frac{5}{18}
\]

Because 6 is a factor of 18, the least common denominator is 18 .
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(\mathbf{1 8 / 6 = 3}\) (note: \(6^{* 3} 3=18\) ):
\[
8 \frac{5 * 3}{6 * 3}-4 \frac{5}{18}=8 \frac{15}{18}-4 \frac{5}{18}
\]

Since the second numerator is not greater than the first, we do not have to borrow.
```

$15 \quad 5$

```
8 - 4
\(18 \quad 18\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(8 \frac{15}{18}-4 \frac{5}{18}=(8-4) \frac{15-5}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((8-4) 15-5=4 \quad 10\)
\(18 \quad 18\)
\(=4 \quad 5 / 9\)
Enter 4 5/9
74) Problem \#PRAJEA5 "PRAJEA5-224053 - Subtracting Mixed Numbers"

Find the difference:
\[
9 \stackrel{1}{-}-2 \frac{5}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(65 / 6\)

\section*{Hints:}
- Notice 9 is a factor of \(\mathbf{1 8}\).
\[
9 \frac{1}{9}-2 \frac{5}{18}
\]

Because 9 is a factor of 18, the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\(9 \frac{1 * 2}{9 * 2}-2 \frac{5}{18}=9 \frac{2}{18}-2 \frac{5}{18}\)
 whole number, 9 , and represent it in fractional form using the common denominator: \(9=8+1=\) 8+18/18
\(8 \underset{18}{\frac{18+2}{}-2 \frac{5}{18}}\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(8 \frac{20}{18}-2 \frac{5}{18}=(8-2) \frac{20-5}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlr}
\((8-2) \frac{20-5}{18}\) & \(=6 \frac{15}{18}\) \\
& \(=6\) & \(5 / 6\)
\end{tabular}

Enter 6 5/6

\section*{75) Problem \#PRAJDQG "PRAJDQG - Adding Mixed Numbers"}

Find the sum:
\[
6 \frac{11}{12}+9 \frac{8}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{1685 / 132}\)

\section*{Hints:}
- The denominators \(\mathbf{1 2}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\(6 \frac{11}{12}+9 \frac{8}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11 :
\[
12 * 11=132
\]

Find equivalent fractions using the denominator 132.

fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:


Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(6+9) \frac{121+96}{132} & =15 & \frac{217}{132} \\
& =15+1 & 85 / 132 \\
& =16 & 85 / 132
\end{array}
\]

Enter 16 85/132

\section*{76) Problem \#PRAJDKC "PRAJDKC - Adding Mixed Numbers"}

Find the sum:
\(5 \frac{9}{10}+10 \frac{7}{30}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(162 / 15\)

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\[
5 \frac{9}{10}+10 \frac{7}{30}
\]

Because 10 is a factor of 30, the least common denominator is \(\mathbf{3 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{3 0}\) : multiply its numerator and denominator by \(\mathbf{3 0} / \mathbf{1 0}=3\) (note: \(10 * 3=30\) ):


Then, group the whole number terms and put both fractions together over the common denominator:
\(5 \frac{27}{30}+10 \frac{7}{30}=(5+10) \frac{27+7}{30}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(5+10) \frac{27+7}{30} & =15 & \frac{34}{30} \\
& =15+1 & 4 / 30 \\
& =16 & 2 / 15
\end{array}
\]
77) Problem \#PRAJDNB "PRAJDNB - Adding Mixed Numbers"

Find the sum:
\[
4 \frac{3}{11}+2 \frac{9}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 7 19/110

\section*{Hints:}
- The denominators \(\mathbf{1 1}\) and \(\mathbf{1 0}\) have no common factors greater than 1 .
\[
4 \frac{3}{11}+2 \frac{9}{10}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 11 by \(\mathbf{1 0}\) :
\[
11 * 10=110
\]

Find equivalent fractions using the denominator \(\mathbf{1 1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
4 \frac{3^{* 10}}{}+2 \frac{9^{* 11}}{}=4 \frac{30}{}+2 \frac{99}{}
\]


Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
(4+2) \frac{30+99}{110} & =6 \frac{129}{110} \\
& =6+1 \quad 19 / 110
\end{aligned}
\]
\[
=719 / 110
\]

Enter 7 19/110
78) Problem \#PRAJDK8 "PRAJDK8 - Adding Mixed Numbers"

Find the sum:
\[
10 \frac{4}{5}+4 \frac{1}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 153 / 10\)

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\(10 \frac{4}{5}+4 \frac{1}{2}\)

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:


Next, group the numerator and whole numbers:
\[
10 \frac{8}{10}+4 \frac{5}{10}=(10+4) \frac{8+5}{10}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(10+4) \frac{8+5}{10}=14 \frac{13}{10}
\]

\section*{79) Problem \#PRAJDMP "PRAJDMP - Adding Mixed Numbers"}

Find the sum:
\(4 \frac{5}{6}+6 \frac{3}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

11 13/30

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\[
4 \frac{5}{6}+6 \frac{3}{5}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
```

            \(4-+6-=4-+6-\)
                        \(6 * 5 \quad 5 * 6 \quad 30 \quad 30\)
    ```

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(4+6) 25+18=10 \quad 43
\]
\[
=10+1 \quad 13 / 30
\]
\[
=1113 / 30
\]

Enter 11 13/30

\section*{80) Problem \#PRAJEAN "PRAJEAN - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\begin{tabular}{rrr}
1 & 5 \\
\(6-\) & -2 & - \\
9 & & 18
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
」 3 5/6

\section*{Hints:}
- Notice 9 is a factor of \(\mathbf{1 8}\).
\(6 \frac{1}{9}-2 \frac{5}{18}\)

Because 9 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\(6 \frac{1 * 2}{9 * 2}-2 \frac{5}{18}=6 \frac{2}{18}-2 \frac{5}{18}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 6 , and represent it in fractional form using the common denominator: \(6=5+1=\) 5+18/18


Next, group the whole number terms and put both fractions together over the common denominator:
\(5 \frac{20}{18}-2 \frac{5}{18}=(5-2) \frac{20-5}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\begin{array}{rlc}
(5-2) \frac{20-5}{18} & =3 & \frac{15}{18} \\
& =3 & 5 / 6
\end{array}
\]

Enter 3 5/6
81) Problem \#PRAJD82 "PRAJD82-224053 - Subtracting Mixed Numbers"

Find the difference:
\(10 \frac{11}{12}-2 \frac{11}{36}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(811 / 18\)

\section*{Hints:}
- Notice 12 is a factor of 36.
\(10 \frac{11}{12}-2 \frac{11}{36}\)

Because 12 is a factor of 36, the least common denominator is 36 .
- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by \(\mathbf{3 6} / \mathbf{1 2 = 3}\) (note: \(12 * 3=36\) ):
11*3 \(11 \quad 33 \quad 11\)

\(12 * 3636\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{33}{36}-2 \frac{11}{36}=(10-2) \frac{33-11}{36}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
```

    33-11 22
    $(10-2) \frac{}{36}=8 \frac{}{36}$
$=8 \quad 11 / 18$

```

Enter 8 11/18
82) Problem \#PRAJD9Q "PRAJD9Q - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
11-\frac{5}{8}-8 \frac{7}{24}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
\(31 / 3\)

\section*{Hints:}
- Notice 8 is a factor of \(\mathbf{2 4}\).
\(11 \frac{5}{8}-8 \frac{7}{24}\)

Because 8 is a factor of 24, the least common denominator is 24 .
- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by \(\mathbf{2 4 / 8 = 3}\) (note: \(8^{* 3=24) \text { ): }}\)
\(11 \frac{5^{* 3}}{8 * 3}-8 \frac{7}{24}=11 \frac{15}{24}-8 \frac{7}{24}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(11-8) \(\begin{array}{rlr}\frac{15-7}{24} & =3 \frac{8}{24} \\ & =3 & 1 / 3\end{array}\)
Enter 3 1/3

\section*{83) Problem \#PRAJEDK "PRAJEDK - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
10 \frac{5}{6}-2 \frac{2}{5}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(813 / 30\)

\section*{Hints:}
- The denominators \(\mathbf{6}\) and \(\mathbf{5}\) have no common factors greater than 1 .
\(10-5-2 \frac{2}{5}\)

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :

Find equivalent fractions using the denominator \(\mathbf{3 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{5 * 5}{6 * 5}-2 \frac{2 * 6}{5 * 6}=10 \frac{25}{30}-2 \frac{12}{30}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\[
10{ }_{30}^{25}-2 \frac{12}{-}
\]

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(10-2) \frac{25-12}{30}=8 \frac{13}{30}
\]

Enter 8 13/30
84) Problem \#PRAJDJX "PRAJDJX - Adding Mixed Numbers"

Find the sum:
\[
9 \frac{5}{7}+8 \frac{3}{14}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(\sqrt{ } 1713 / 14\)

\section*{Hints:}
- Notice 7 is a factor of 14.
https://www.assistments.org/build/print/sequence/809734 \({ }_{\text {mode }}=\) debuy\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
\[
9-+8-
\]

Because 7 is a factor of \(\mathbf{1 4}\), the least common denominator is \(\mathbf{1 4}\).
- Convert the first fraction to an equivalent fraction with a denominator of 14 : multiply its numerator and denominator by \(14 / 7=2\) (note: \(7 * 2=14\) ):
\(9 \frac{5 * 2}{7 * 2}+8 \frac{3}{14}=9 \frac{10}{14}+8 \frac{3}{14}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
910+83=(9+8) 10+3
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(9+8) \frac{10+3}{14}=17 \frac{13}{14}
\]

Enter 17 13/14

\section*{85) Problem \#PRAJDKP "PRAJDKP - Adding Mixed Numbers"}

Find the sum:
\[
\begin{array}{r}
1 \\
10- \\
8 \\
8
\end{array} \frac{8}{9}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(161 / 72\)

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\[
\begin{array}{rr}
1 \\
10- & 8 \\
8 & 9
\end{array}
\]

Because the denominators have no common factors, find the least common denominator by

\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
10 \frac{1 * 9}{8 * 9}+5 \frac{8 * 8}{\mathbf{9 * 8}}=10 \frac{9}{72}+5 \frac{64}{72}
\]

Next, group the numerator and whole numbers:
\begin{tabular}{c}
109 \\
72
\end{tabular}\(\underset{72}{7} \quad=(10+5) \frac{9+64}{72}\)

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(10+5) \frac{9+64}{72} & =15 & \frac{73}{72} \\
& =15+1 & 1 / 72 \\
& =16 & 1 / 72
\end{array}
\]

Enter 16 1/72

\section*{86) Problem \#PRAJDPD "PRAJDPD - Adding Mixed Numbers"}

Find the sum:
\[
\begin{array}{r}
1 \\
1- \\
2
\end{array}+3 \frac{1}{3}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(45 / 6\)

\section*{Hints:}
- The denominators 2 and \(\mathbf{3}\) have no common factors greater than 1 .
\[
1 \frac{1}{2}+3 \frac{1}{3}
\]
 multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
```

    1*3 1*2 3 2
    $1-+3-=1-+3-$
2*3 3*2 6

```

Next, group the numerator and whole numbers:
\[
13+32=(1+3) 3+2
\]
\(6 \quad 6 \quad 6\)

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(1+3) \frac{3+2}{6}=4 \frac{5}{6}
\]

Enter 4 5/6
87) Problem \#PRAJEAB "PRAJEAB - 224053 - Subtracting Mixed Numbers"

Find the difference:
\(5 \frac{10}{11}-1 \frac{5}{22}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(\sqrt{ }\) 4 \(15 / 22\)

\section*{Hints:}
- Notice 11 is a factor of 22
\(5 \frac{10}{11}-1 \frac{5}{22}\)

Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by 22/11=2 (note: \(11 * 2=22\) ):
\(5 \frac{10 * 2}{11 * 2}-1 \frac{5}{22}=5 \frac{20}{22}-1 \frac{5}{22}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{5}^{20}-1 \underset{22}{-}\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(5 \frac{20}{22}-1 \frac{5}{22}=(5-1) \frac{20-5}{22}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((5-1) \frac{20-5}{22}=4 \frac{15}{22}\)

Enter 4 15/22
88) Problem \#PRAJDJM "PRAJDJM - Adding Mixed Numbers"

Find the sum:
\[
10 \frac{1}{6}+9 \frac{1}{18}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
19 2/9

\section*{Hints:}
- Notice \(\mathbf{6}\) is a factor of \(\mathbf{1 8}\).
\[
10 \stackrel{1}{-}+9 \frac{1}{-}
\]
\[
6 \quad 18
\]


Because 6 is a factor of 18, the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):
\(10 \frac{1 * 3}{6 * 3}+9 \frac{1}{18}=10 \frac{3}{18}+9 \frac{1}{18}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
10 \frac{3}{18}+9 \frac{1}{18}=(10+9) \frac{3+1}{18}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(10+9) \frac{3+1}{18} & =19 & \frac{4}{18} \\
& =19 & 4 / 18 \\
& =19 & 2 / 9
\end{array}
\]

Enter 19 2/9

\section*{89) Problem \#PRAJDNG "PRAJDNG - Adding Mixed Numbers"}

Find the sum:
\[
8 \frac{1}{10}+7 \frac{5}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{1561 / 110}\)

\section*{Hints:}
- The denominators \(\mathbf{1 0}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\[
8 \frac{1}{10}+7 \frac{5}{11}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:

Find equivalent fractions using the denominator \(\mathbf{1 1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{1 * 11}{10 * 11}+7 \frac{5 * 10}{11 * 10}=8 \frac{11}{110}+7 \frac{50}{110}\)

Next, group the numerator and whole numbers:
\[
8 \frac{11}{110}+7 \frac{50}{\mathbf{1 1 0}}=(8+7) \frac{11+50}{110}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(8+7) \frac{11+50}{110}=15 \frac{61}{110}
\]

Enter 15 61/110

\section*{90) Problem \#PRAJEDQ "PRAJEDQ - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
10 \stackrel{1}{-}-2 \frac{2}{2} 3
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(75 / 6\)

\section*{Hints:}
- The denominators 2 and \(\mathbf{3}\) have no common factors greater than 1 .
\[
\begin{array}{rr}
1 & 2 \\
10- \\
2 & -2
\end{array}
\]

Because the denominators have no common factors, find the least common denominator by
multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
10 \frac{1 * 3}{2 * 3}-2 \frac{2 * 2}{3^{* 2}}=10 \frac{3}{6}-2 \frac{4}{6}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+6/6

Next, group the numerator and whole numbers:
\(9 \underset{6}{9}-2 \underset{6}{-}=(9-2) \frac{9-4}{6}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(9-2) \frac{9-4}{6}=7 \frac{5}{6}
\]

Enter 7 5/6

\section*{91) Problem \#PRAJEEC "PRAJEEC - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
7 \frac{1}{12}-3 \frac{9}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 355 / 132\)

- The denominators \(\mathbf{1 2}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\(7 \frac{1}{12}-3 \frac{9}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11:
\[
12 * 11=132
\]

Find equivalent fractions using the denominator 132.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
71 * 11-39 * 12=711-3108
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 7 , and represent it in fractional form using the common denominator: \(7=6+1=\) \(6+132 / 132\)


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((6-3) \frac{143-108}{132}=3 \frac{35}{132}\)

Enter 3 35/132
92) Problem \#PRAJEAH "PRAJEAH - 224053 - Subtracting Mixed Numbers"

Find the difference:


Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{1} 1 / 2\)

\section*{Hints:}
- Notice 11 is a factor of 22.
\[
3 \frac{7}{11}-2 \frac{3}{22}
\]

Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and
denominator by 22/11=2 (note: 11 *2=22):
\[
3 \frac{7 * 2}{11 * 2}-2 \frac{3}{22}=3 \frac{14}{22}-2 \frac{3}{22}
\]

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(3 \frac{14}{22}-2 \frac{3}{22}=(3-2) \frac{14-3}{22}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlr}
\((3-2) \frac{14-3}{22}\) & \(=1\) & \(\frac{11}{22}\) \\
& \(=1\) & \(1 / 2\)
\end{tabular}

Enter 1 1/2
93) Problem \#PRAJEDW "PRAJEDW - 224054 - Subtracting Mixed Numbers"

Find the difference:
\(11-1-\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
v 10 5/63

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\(11 \frac{2}{9}-1 \frac{1}{7}\)

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(11 \frac{2 * 7}{9 * 7}-1 \frac{1 * 9}{7 * 9}=11 \frac{14}{63}-1 \frac{9}{63}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((11-1) \frac{14-9}{63}=10 \frac{5}{63}\)

Enter 10 5/63
94) Problem \#PRAJDHW "PRAJDHW - Adding Mixed Numbers"

Find the sum:
\[
4 \frac{1}{4}+2 \frac{11}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
」 \(71 / 6\)

\section*{Hints:}
- Notice 4 is a factor of \(\mathbf{1 2}\).
\(4 \frac{1}{4}+2 \frac{11}{12}\)

Because 4 is a factor of 12, the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of 12: multiply its numerator and denominator by \(\mathbf{1 2 / 4 = 3}\) (note: \(4 * 3=12\) ):
\(4 \frac{1 * 3}{4 * 3}+2 \frac{11}{12}=4 \frac{3}{12}+2 \frac{11}{12}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
4 \frac{3}{12}+2 \frac{11}{12}=(4+2) \frac{3+11}{12}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(4+2) \frac{3+11}{12} & =6 \frac{14}{12} \\
& =6+1 & 2 / 12 \\
& =7 & 1 / 6
\end{array}
\]

Enter 7 1/6
95) Problem \#PRAJD92 "PRAJD92-224053 - Subtracting Mixed Numbers"
 Find the differencel
\[
7 \stackrel{1}{2}-6 \frac{3}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
」 \(11 / 8\)

\section*{Hints:}
- Notice 2 is a factor of \(\mathbf{8}\).
\[
\begin{array}{rr}
1 & 3 \\
-- & 6 \\
2
\end{array}
\]

Because 2 is a factor of 8, the least common denominator is \(\mathbf{8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 8: multiply its numerator and denominator by 8/2=4 (note: \(2 * 4=8\) ):
\[
7 \frac{1^{*} 4}{2 * 4}-6 \frac{3}{8}=7 \frac{4}{-}=6 \frac{3}{8}
\]

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\[
7-\frac{3}{8}-\frac{3}{8}=(7-6) \frac{4-3}{8}
\]

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(7-6) \frac{4-3}{8}=1 \frac{1}{8}
\]

Enter 1 1/8

\section*{96) Problem \#PRAJDQK "PRAJDQK - Adding Mixed Numbers"}

Find the sum:
\(10 \stackrel{4}{-}+10 \frac{11}{7}\)

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

21 41/84

\section*{Hints:}
- The denominators 7 and 12 have no common factors greater than 1.
\(104+1011\)

Because the denominators have no common factors, find the least common denominator by multiplying 7 by 12 :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{4 * \mathbf{1 2}}{7 * \mathbf{1 2}}+10 \frac{11^{* 7}}{12^{*} 7}=10 \frac{48}{\mathbf{8 4}}+10 \frac{77}{\mathbf{8 4}}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(10+10) \frac{48+77}{84} & =20 & \frac{125}{84} \\
& =20+1 & 41 / 84 \\
& =21 & 41 / 84
\end{array}
\]

Enter 21 41/84

97) Problem \#PRAJDJD "PRAJDJD - Adding Mixed Numbers"

Find the sum:
\(1 \stackrel{3}{8}+5 \frac{13}{24}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
611/12

\section*{Hints:}
- Notice 8 is a factor of 24 .
\begin{tabular}{cr}
13 \\
- & - \\
8 & \\
8
\end{tabular}

Because 8 is a factor of 24, the least common denominator is 24 .
- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by \(24 / 8=3\) (note: \(8 * 3=24\) ):
\(1 \frac{3^{*} 3}{8^{*} 3}+5 \frac{13}{24}=1 \frac{9}{24}+5 \frac{13}{24}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\(1 \frac{9}{24}+5 \frac{13}{24}=(1+5) \frac{9+13}{24}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlc}
(1+5) \frac{9+13}{24} & =6 & \frac{22}{24} \\
& =6 & 22 / 24 \\
& =6 & 11 / 12
\end{array}
\]

Enter 6 11/12

\section*{98) Problem \#PRAJDMD "PRAJDMD - Adding Mixed Numbers"}

Find the sum:
\(9 \frac{1}{2}+5 \frac{2}{3}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\151/6

\section*{Hints:}
- The denominators 2 and 3 have no common factors greater than 1 .
\[
\begin{array}{r}
1 \\
9- \\
2
\end{array} \frac{2}{3}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
9 \frac{1 * 3}{2 * 3}+5 \frac{2 * 2}{3 * 2}=9 \frac{3}{6}+5 \frac{4}{6}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(9+5) \frac{3+4}{6} & =14 \frac{7}{6} \\
& =14+1 & 1 / 6 \\
& =15 & 1 / 6
\end{array}
\]

Enter 15 1/6

\section*{99) Problem \#PRAJEDS "PRAJEDS - 224054 - Subtracting Mixed Numbers"}
 Find the difference:
\[
\begin{array}{rr}
5 \\
8- \\
6
\end{array} \frac{2}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

6 13/30

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\(8-2 \frac{2}{-}\)

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{5 * 5}{6 * 5}-2 \frac{2 * 6}{5 * 6}=8 \frac{25}{30}-2 \frac{12}{30}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\(8{ }_{30}^{25}-2_{30}^{12}\)

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

\section*{25-12 13}

30
30

Enter 6 13/30
100) Problem \#PRAJED6 "PRAJED6 - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
10 \frac{1}{10}-8 \frac{5}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
\(\sqrt{ } 171 / 110\)

\section*{Hints:}
- The denominators \(\mathbf{1 0}\) and \(\mathbf{1 1}\) have no common factors greater than 1.
\(10 \frac{1}{10}-8 \frac{5}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:
\[
10 * 11=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
10 \frac{1 * 11}{10 * \mathbf{1 1}}-8 \frac{5^{*} 10}{11^{*} 10}=10 \frac{11}{110}-8 \frac{50}{\mathbf{1 1 0}}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) \(9+110 / 110\)


Next, group the numerator and whole numbers:

\(9{ }_{110}-8 \frac{-}{110}=(9-8) \frac{1}{110}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((9-8) \frac{121-50}{110}=1 \frac{71}{110}\)

Enter 1 71/110

\section*{101) Problem \#PRAJECB "PRAJECB - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\begin{tabular}{rr}
\(10_{1}-3_{4}\) \\
- & - \\
8 & 9
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 649 / 72\)

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\(10-3-3-4\)

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{1 * 9}{8 * 9}-3 \frac{4 * 8}{9 * 8}=10 \frac{9}{72}-3 \frac{32}{72}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+72/72
\(9_{72}{ }^{-3} 72\)

Next, group the numerator and whole numbers:
\({ }_{9} \frac{81}{72}-3 \frac{32}{72}=(9-3) \frac{81-32}{72}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((9-3) 81-32=649\)
102) Problem \#PRAJED4 "PRAJED4 - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
3 & 1 \\
8- & -7- \\
8 & 9
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

1 19/72

\section*{Hints:}
- The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\begin{tabular}{rr}
3 & 1 \\
8 & \(-7-9\)
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:

8*9 9*8 \(72 \quad 72\)

Since the second numerator is not greater than the first, we do not have to borrow.
\(8 \frac{27}{82}-7 \frac{8}{72}\)

Next, group the numerator and whole numbers:
\begin{tabular}{c}
\(827-7\) \\
72
\end{tabular}\(\frac{7}{72}=(8-7) \frac{27-8}{72}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((8-7) \frac{27-8}{72}=1 \frac{19}{72}\)

Enter 1 19/72

\section*{103) Problem \#PRAJDPA "PRAJDPA - Adding Mixed Numbers"}

Find the sum:
\[
6 \frac{9}{10}+4 \frac{6}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 11\) 49/110

\section*{Hints:}
- The denominators \(\mathbf{1 0}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\[
6 \frac{9}{10}+4 \frac{6}{11}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:
\[
10 * 11=110
\]

Find equivalent fractions using the denominator \(\mathbf{1 1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
6 \frac{9 * 11}{10 * 11}+4 \frac{6^{*} 10}{11^{*} \mathbf{1 0}}=6 \frac{99}{110}+4 \frac{60}{\mathbf{1 1 0}}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(6+4) \frac{99+60}{110} & =10 & \frac{159}{110} \\
& =10+1 & 49 / 110 \\
& =11 & 49 / 110
\end{array}
\]

Enter 11 49/110

\section*{104) Problem \#PRAJDNY "PRAJDNY - Adding Mixed Numbers"}

Find the sum:
\[
8 \frac{8}{11}+5 \frac{3}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 143 / 110\)

\section*{Hints:}
- The denominators \(\mathbf{1 1}\) and \(\mathbf{1 0}\) have no common factors greater than 1 .
\[
8 \frac{8}{11}+5 \frac{3}{10}
\]

Because the denominators have no common factors, find the least common denominator by
multiplying 11 by 10:
\[
11 * 10=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
8 \frac{8^{* 10}}{11^{*} \mathbf{1 0}}+5 \frac{3^{*} 11}{10^{*} 11}=8 \frac{80}{110}+5 \frac{33}{\mathbf{1 1 0}}
\]

Next, group the numerator and whole numbers:
\(880+533=(8+5) 80+33\)

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlcc}
(8+5) \frac{80+33}{110} & =13 & \frac{113}{110} \\
& =13+1 & 3 / 110 \\
& =14 & 3 / 110
\end{array}
\]

Enter 14 3/110
105) Problem \#PRAJEEA "PRAJEEA - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
6 \frac{2}{11}-1 \frac{3}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ }\) 97/110

\section*{Hints:}
- The denominators \(\mathbf{1 1}\) and \(\mathbf{1 0}\) have no common factors greater than 1 .
\(6 \frac{2}{11}-1 \frac{3}{10}\)

Because the denominators have no common factors, find the least common denominator by multiplying 11 by 10:
\[
11 * 10=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
6 \frac{2 * 10}{11^{*} 10}-1 \frac{3^{*} 11}{10^{*} 11}=6 \frac{20}{110}-1 \frac{33}{110}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 6 , and represent it in fractional form using the common denominator: \(6=5+1=\)

5+110/110


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((5-1) \frac{130-33}{110}=4 \frac{97}{110}\)

Enter 4 97/110
106) Problem \#PRAJDM6 "PRAJDM6 - Adding Mixed Numbers"

Find the sum:
\(\underset{3}{\frac{1}{-}}+\underset{6}{1}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example \(35 / 8\) )

\(\sqrt{ } 181 / 2\)

\section*{Hints:}
- Notice 3 is a factor of 6 .
\[
\begin{gathered}
1 \\
9- \\
3
\end{gathered} \frac{1}{6}
\]

Because 3 is a factor of \(\mathbf{6}\), the least common denominator is \(\mathbf{6}\).
- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by \(\mathbf{6 / 3 = 2}\) (note: \(3 * 2=6\) ):
\[
9 \frac{1 * 2}{3 * 2}+9 \frac{1}{6}=9 \frac{2}{6}+9 \frac{1}{6}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{2}{6}+9 \frac{1}{6}=(9+9) \frac{2+1}{6}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlc}
(9+9) \frac{2+1}{6} & =18 \quad \frac{3}{6} \\
& =18 & 3 / 6 \\
& =18 & 1 / 2
\end{array}
\]

Enter 18 1/2
107) Problem \#PRAJEEQ "PRAJEEQ-224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
3 & 6 \\
6- & - \\
4 & - \\
7
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(325 / 28\)

\section*{Hints:}
- The denominators 4 and 7 have no common factors greater than 1 .
\(6-2 \frac{6}{-}\)

Because the denominators have no common factors, find the least common denominator by multiplying 4 by 7 :
\[
4 * 7=28
\]

Find equivalent fractions using the denominator 28.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
6 \frac{3 * 7}{4 * 7}-2 \frac{6 * 4}{7 * 4}=6 \frac{21}{28}-2 \frac{24}{28}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 6 , and represent it in fractional form using the common denominator: \(6=5+1=\) 5+28/28


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(5-2) \(\frac{49-24}{28}=3 \frac{25}{28}\)

Enter 3 25/28

\section*{108) Problem \#PRAJDJF "PRAJDJF - Adding Mixed Numbers"}

Find the sum:
\[
4 \stackrel{2}{-}+2-
\]

3

\section*{6}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(65 / 6\)

\section*{Hints:}
- Notice 3 is a factor of 6 .
\[
4 \frac{2}{3}+2 \frac{1}{6}
\]

Because 3 is a factor of \(\mathbf{6}\), the least common denominator is \(\mathbf{6}\).
- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by \(\mathbf{6 / 3 = 2}\) (note: \(3 * 2=6\) ):
\[
4 \frac{2^{* 2}}{3^{*} 2}+2 \frac{1}{6}=4 \frac{4}{6}+2 \frac{1}{6}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\(4 \frac{4}{6}+2 \frac{1}{6}=(4+2) \frac{4+1}{6}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(4+2) \frac{4+1}{6}=6 \frac{5}{6}
\]

Enter 6 5/6

\section*{109) Problem \#PRAJECD "PRAJECD - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{rr}
8 & 4 \\
8- & -3- \\
9
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

Hints:

\section*{PSABKKR 3.1}


The denominators 9 and 7 have no common factors greater than 1 .
\[
\begin{array}{rr}
8 & 4 \\
8-- & 3 \\
9 & 7
\end{array}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63.

\section*{PSABKKR 3.2}

Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{8 * 7}{9 * 7}-3 \frac{4 * 9}{7 * 9}=8 \frac{56}{63}-3 \frac{36}{63}\)
\(8_{63}{ }^{56}-3_{63}\)

Next, group the numerator and whole numbers:
\({ }_{8} \frac{56}{63}-3 \frac{36}{63}=(8-3) \frac{56-36}{63}\)

Now, find the difference in the numerator and in the whole numbers.

\section*{PSABKKR 3.3}


Subtracting gives:
\[
(8-3)^{\frac{56-36}{}}=5 \quad \frac{20}{-}
\]


Enter 5 20/63
110) Problem \#PRAJDJK "PRAJDJK - Adding Mixed Numbers"

Find the sum:
\[
3 \frac{1}{3}+10 \frac{1}{6}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{131 / 2}\)

\section*{Hints:}
- Notice 3 is a factor of \(\mathbf{6}\).
\(3 \frac{1}{3}+10 \frac{1}{-}\)

Because 3 is a factor of \(\mathbf{6}\), the least common denominator is \(\mathbf{6}\).
- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by \(\mathbf{6 / 3 = 2}\) (note: \(3 * 2=6\) ):
\(3 \frac{1 * 2}{3 * 2}+10 \frac{1}{6}=3 \frac{2}{6}+10 \frac{1}{6}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\(\stackrel{2}{3-}+10 \frac{1}{6}=(3+10) \frac{2+1}{6}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlc}
(3+10) \frac{2+1}{6} & =13 \quad \frac{3}{6} \\
& =13 & 3 / 6 \\
& =13 & 1 / 2
\end{array}
\]

Enter 13 1/2

\section*{111) Problem \#PRAJDJP "PRAJDJP - Adding Mixed Numbers"}
https://Hww.assistments.org/build/print/sequence/809734?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
\[
5 \stackrel{1}{9}+8 \frac{5}{18}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
\(\sqrt{ } 137 / 18\)

\section*{Hints:}
- Notice 9 is a factor of \(\mathbf{1 8}\).
\(5 \frac{1}{9}+8 \frac{5}{18}\)

Because 9 is a factor of 18, the least common denominator is 18.
- Convert the first fraction to an equivalent fraction with a denominator of 18 : multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\(5 \frac{1 * 2}{9 * 2}+8 \frac{5}{18}=5 \frac{2}{18}+8 \frac{5}{18}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
5 \frac{2}{18}+8 \frac{5}{18}=(5+8) \frac{2+5}{18}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(5+8) \frac{2+5}{18}=13 \frac{7}{18}
\]

Enter 13 7/18

\section*{112) Problem \#PRAJEDA "PRAJEDA - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
8 \stackrel{5}{2}--6-
\]

6


Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 213 / 30\)

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1.
\begin{tabular}{rr}
5 & 2 \\
\(8-\) & \(-6-\) \\
6
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{5 * 5}{6 * 5}-6 \frac{2 * 6}{5 * 6}=8 \frac{25}{30}-6 \frac{12}{30}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{8}^{25}-6{ }_{30}^{2}\)

Next, group the numerator and whole numbers:
\(8 \frac{25}{30}-6 \frac{12}{30}=(8-6) \frac{25-12}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((8-6) \frac{25-12}{30}=2 \frac{13}{30}\)

Enter 2 13/30
113) Problem \#PRAJEBC "PRAJEBC - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
10-9 \frac{7}{4}-\frac{7}{12}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(\sqrt{2 / 3}\)
Hints:
- Notice 4 is a factor of 12.

Because 4 is a factor of 12, the least common denominator is 12 .
- Convert the first fraction to an equivalent fraction with a denominator of 12 : multiply its numerator and denominator by \(12 / 4=3\) (note: \(4 * 3=12\) ):
\(10 \frac{1 * 3}{4 * 3}-9 \frac{7}{12}=10 \frac{3}{12}-9 \frac{7}{12}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) \(9+12 / 12\)


Next, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{15}{12}-9 \frac{7}{12}=(9-9) \frac{15-7}{12}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(9-9) \frac{15-7}{12}=0 \frac{8}{12}
\]

Enter 2/3

\section*{114) Problem \#PRAJEB7 "PRAJEB7-224054 - Subtracting Mixed Numbers"}

Find the difference:
\(4 \frac{11}{12}-3 \frac{3}{11}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

1 85/132

\section*{Hints:}
- The denominators \(\mathbf{1 2}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\(4 \frac{11}{12}-3 \frac{3}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11:
\[
12 * 11=132
\]

Find equivalent fractions using the denominator 132.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(4 \frac{11 * 11}{12 * 11}-3 \frac{3 * 12}{11 * 12}=4 \frac{121}{132}-3 \frac{36}{132}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((4-3) \frac{121-36}{132}=1 \frac{85}{132}\)

Enter 1 85/132
115) Problem \#PRAJDJ5 "PRAJDJ5 - Adding Mixed Numbers"

Find the sum:
\[
10 \frac{3}{4}+2 \frac{1}{12}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

12 5/6

\section*{Hints:}
- Notice 4 is a factor of \(\mathbf{1 2}\).
\[
10 \frac{3}{4}+2 \frac{1}{12}
\]

Because 4 is a factor of 12, the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 2}\) : multiply its numerator and denominator by \(\mathbf{1 2 / 4 = 3}\) (note: \(4 * 3=12\) ):
\[
10 \frac{3^{* 3}}{4^{* 3}}+2 \frac{1}{12}=10 \frac{9}{12}+2 \frac{1}{12}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
10 \frac{9}{12}+2 \frac{1}{12}=(10+2) \frac{9+1}{12}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(10+2) \frac{9+1}{}=12 \frac{10}{}
\]

973 . mode=debugcop \(\frac{12}{52}\)
\[
\begin{array}{ll}
=12 & 10 / 12 \\
=12 & 5 / 6
\end{array}
\]

Enter 12 5/6

\section*{116) Problem \#PRAJECV "PRAJECV - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
8 \frac{2}{7}-4 \frac{7}{12}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

\section*{Hints:}
- The denominators 7 and \(\mathbf{1 2}\) have no common factors greater than 1 .
\[
8 \frac{2}{7}-4 \frac{7}{12}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 7 by \(\mathbf{1 2}\) :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{2 * 12}{7 * 12}-4 \frac{7 * 7}{12 * 7}=8 \frac{24}{84}-4 \frac{49}{84}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: \(8=7+1=\) 7+84/84


Next, group the numerator and whole numbers:

```

    7 84 - 4- = (7-4) - 84
    ```

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((7-4) \frac{108-49}{84}=3 \frac{59}{84}\)

Enter 3 59/84
117) Problem \#PRAJD86 "PRAJD86-224053 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{cc}
\(11_{1}-10\) & 1 \\
- \\
6 & \\
\hline
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(11 / 9\)

\section*{Hints:}
- Notice 6 is a factor of 18.
\(11 \frac{1}{6}-10 \frac{1}{18}\)

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6^{*} 3=18\) ):
\(11 \frac{1 * 3}{6 * 3}-10 \frac{1}{18}=11 \frac{3}{18}-10 \frac{1}{18}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common

\(11 \frac{3}{18}-10 \frac{1}{18}=(11-10) \frac{3-1}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:


Enter 1 1/9

Find the difference:
\(6 \frac{9}{10}-5 \frac{11}{30}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
, \(18 / 15\)

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\[
6 \frac{9}{10}-5 \frac{11}{30}
\]

Because 10 is a factor of 30, the least common denominator is 30 .
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{3 0}\) : multiply its numerator and denominator by \(\mathbf{3 0} / \mathbf{1 0}=3\) (note: \(10 * 3=30\) ):
\(6 \frac{9 * 3}{10 * 3}-5 \frac{11}{30}=6 \frac{27}{30}-5 \frac{11}{30}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{6}{ }_{30}^{27}-5_{30}\)
 denominator:
\(6 \frac{27}{30}-5 \frac{11}{30}=(6-5) \frac{27-11}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\begin{array}{rlc}
(6-5) \frac{27-11}{30} & =1 & \frac{16}{30} \\
& =1 & 8 / 15
\end{array}
\]

Enter 1 8/15

Find the sum:
\[
7 \frac{10}{11}+8 \frac{7}{22}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{165 / 22}\)

\section*{Hints:}
- Notice 11 is a factor of 22.
\[
7 \frac{10}{11}+8 \frac{7}{22}
\]

Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by \(\mathbf{2 2 / 1 1 = 2}\) (note: \(11 * 2=22\) ):
\[
7 \frac{10 * 2}{11^{*} 2}+8 \frac{7}{22}=7 \frac{20}{22}+8 \frac{7}{22}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
7 \frac{20}{22}+8 \frac{7}{22}=(7+8) \frac{20+7}{22}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(7+8) \frac{20+7}{22} & =15 & \frac{27}{22} \\
& =15+1 & 5 / 22 \\
& =16 & 5 / 22
\end{array}
\]

Enter 16 5/22

\section*{120) Problem \#PRAJDPR "PRAJDPR - Adding Mixed Numbers"}

Find the sum:
\[
4 \underset{9}{5}+1 \frac{4}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

6 8/63

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\(4 \underset{9}{-}+1 \frac{4}{7}\)

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(4 \frac{5 * 7}{9 * 7}+1 \frac{4 * 9}{7 * 9}=4 \frac{35}{63}+1 \frac{36}{63}\)

Next, group the numerator and whole numbers:
\[
4 \frac{35}{63}+1 \frac{36}{63}=(4+1) \frac{35+36}{63}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(4+1) \frac{35+36}{63} & =5 \frac{71}{63} \\
& =5+1 & 8 / 63 \\
& =6 & 8 / 63
\end{array}
\]

Enter 6 8/63
121) Problem \#PRAJEAZ "PRAJEAZ - 224053 - Subtracting Mixed Numbers"

Find the difference:

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
, \(31 / 6\)

\section*{Hints:}
- Notice 4 is a factor of \(\mathbf{1 2}\).
\(11 \frac{1}{4}-8 \frac{1}{12}\)

Because 4 is a factor of 12, the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of 12: multiply its numerator and denominator by \(\mathbf{1 2 / 4 = 3}\) (note: \(4 * 3=12\) ):
\(11 \frac{1 * 3}{4 * 3}-8 \frac{1}{12}=11 \frac{3}{12}-8 \frac{1}{12}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\[
11 \underset{12}{-}-8 \underset{12}{-}=(11-8) \overline{12}
\]

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlr}
\((11-8) \frac{3-1}{12}\) & \(=3 \frac{2}{12}\) \\
& \(=3 \quad 1 / 6\)
\end{tabular}

Enter 3 1/6
122) Problem \#PRAJDK4 "PRAJDK4 - Adding Mixed Numbers"

Find the sum:
\[
6_{1}+1_{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(77 / 15\)

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\[
6 \frac{1}{10}+1 \frac{11}{30}
\]

Because 10 is a factor of 30, the least common denominator is 30 .
- Convert the first fraction to an equivalent fraction with a denominator of 30: multiply its numerator and denominator by \(\mathbf{3 0 / 1 0 = 3}\) (note: \(10 * 3=30\) ):
\[
6 \frac{1 * 3}{10 * 3}+1 \frac{11}{30}=6 \frac{3}{30}+1 \frac{11}{30}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
6 \frac{3}{30}+1 \frac{11}{30}=(6+1) \frac{3+11}{30}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:

```

            (6 + 1) - = 7
            30
                            30
                        = 7 14/30
                        = 7 7/15
    ```

Enter 7 7/15
123) Problem \#PRAJEBT "PRAJEBT - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
11 \frac{1}{3}-1 \frac{1}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
\(\sqrt{ } 101 / 6\)

\section*{Hints:}
- Notice 3 is a factor of 6 .
\(11 \frac{1}{3}-1 \frac{1}{6}\)

Because 3 is a factor of 6 , the least common denominator is \(\mathbf{6}\).
- Convert the first fraction to an equivalent fraction with a denominator of 6 : multiply its numerator and denominator by \(\mathbf{6 / 3 = 2}\) (note: \(3 * 2=6\) ):
\(11 \frac{1 * 2}{3 * 2}-1 \frac{1}{6}=11 \frac{2}{6}-1 \frac{1}{6}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(11 \frac{2}{6}-1 \frac{1}{6}=(11-1) \frac{2-1}{6}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((11-1) \frac{2-1}{6}=10 \frac{1}{6}\)
Enter 10 1/6

\section*{124) Problem \#PRAJDN2 "PRAJDN2 - Adding Mixed Numbers"}

Find the sum:
\[
1 \frac{1}{12}+5 \frac{1}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

」 \(623 / 132\)

\section*{Hints:}
- The denominators \(\mathbf{1 2}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\(1 \frac{1}{12}+5 \frac{1}{11}\)

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11 :
\[
12 * 11=132
\]

Find equivalent fractions using the denominator 132.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(1 \frac{1 * 11}{12 * 11}+5 \frac{1 * 12}{11 * 12}=1 \frac{11}{132}+5 \frac{12}{132}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(1+5) \frac{11+12}{132}=6 \frac{23}{132}
\]

Enter 6 23/132
125) Problem \#PRAJDM3 "PRAJDM3 - Adding Mixed Numbers"

Find the sum:
\[
8 \frac{2}{9}+10 \frac{1}{18}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
ป \(185 / 18\)

\section*{Hints:}
- Notice \(\mathbf{9}\) is a factor of \(\mathbf{1 8}\).
\(8 \frac{2}{9}+10 \frac{1}{18}\)

Because 9 is a factor of 18, the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\[
8 \frac{2 * 2}{9 * 2}+10 \frac{1}{18}=8 \frac{4}{18}+10 \frac{1}{18}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\(8 \frac{4}{18}+10 \frac{1}{18}=(8+10) \frac{4+1}{18}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(8+10) \frac{4+1}{}=18 \frac{5}{4}
\]


Enter 18 5/18
126) Problem \#PRAJDH5 "PRAJDH5 - Adding Mixed Numbers"

Find the sum:
\(6 \underset{5}{\frac{2}{-}}+1 \frac{7}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):

\section*{Hints:}
- Notice 5 is a factor of \(\mathbf{1 0}\).
\(6 \frac{2}{5}+1 \frac{7}{10}\)

Because 5 is a factor of \(\mathbf{1 0}\), the least common denominator is \(\mathbf{1 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 0}\) : multiply its numerator and denominator by \(10 / 5=2\) (note: \(5 * 2=10\) ):
\[
6 \frac{2 * 2}{5 * 2}+1 \frac{7}{10}=6 \frac{4}{10}+1 \frac{7}{10}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
6 \frac{4}{10}+1 \frac{7}{10}=(6+1) \frac{4+7}{10}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrl}
(6+1) \frac{4+7}{10} & =7 & \frac{11}{10} \\
& =7+1 & 1 / 10 \\
& =8 & 1 / 10
\end{array}
\]

Enter 8 1/10

\section*{127) Problem \#PRAJDPX "PRAJDPX - Adding Mixed Numbers"}

Find the sum:
\[
\begin{array}{r}
1 \\
1- \\
2
\end{array}+\frac{2}{-}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(71 / 6\)

\section*{Hints:}
- The denominators 2 and \(\mathbf{3}\) have no common factors greater than 1 .

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
```

    1*3 2*2 \(3 \quad 4\)
    $1-+5-=1-+5-$
2*3 $3 * 26$

```

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlrc}
(1+5) \frac{3+4}{6} & =6 \frac{7}{6} \\
& =6+1 & 1 / 6 \\
& =7 & 1 / 6
\end{array}
\]

Enter 7 1/6

\section*{128) Problem \#PRAJDMK "PRAJDMK - Adding Mixed Numbers"}

Find the sum:
\begin{tabular}{c}
1 \\
5
\end{tabular}\(+1 \frac{1}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

Exact Match (case sensitive):

\section*{9 7/10}

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\begin{tabular}{rrr}
81 & 1 \\
- & 1 \\
5 & 2
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator \(\mathbf{1 0}\).
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
8 \frac{1 * 2}{5 * 2}+1 \frac{1 * 5}{2 * 5}=8 \frac{2}{10}+1 \frac{5}{10}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(8+1) \frac{2+5}{10}=9 \frac{7}{10}
\]

\section*{129) Problem \#PRAJECK "PRAJECK - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\(5 \underset{7}{1}-4 \frac{1}{12}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, 15/84

\section*{Hints:}
- The denominators 7 and 12 have no common factors greater than 1.
\(5 \frac{1}{7}-4 \frac{1}{12}\)

Because the denominators have no common factors, find the least common denominator by multiplying 7 by 12 :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(5 \frac{1 * 12}{7 * 12}-4 \frac{1 * 7}{12 * 7}=5 \frac{12}{84}-4 \frac{7}{84}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(5-4) \(\frac{12-7}{84}=1 \frac{5}{84}\)

Enter 1 5/84
130) Problem \#PRAJDMB "PRAJDMB - Adding Mixed Numbers"

Find the sum:

> 1
> \(10-\)
> 6 \(\frac{4}{-}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
( 11 29/30

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .
\(10 \stackrel{1}{-}+1 \frac{4}{-}\)

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
\frac{1 * 5}{6 * 5}+1 \frac{4 * 6}{5 * 6}=10 \frac{5}{30}+1 \frac{24}{30}
\]

Next, group the numerator and whole numbers:
\[
10 \frac{5}{30}+1 \frac{24}{30}=(10+1) \frac{5+24}{30}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(10+1) \frac{5+24}{30}=11 \frac{29}{30}
\]

Enter 11 29/30

\section*{131) Problem \#PRAJDJH "PRAJDJH - Adding Mixed Numbers"}

Find the sum:

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
」 \(71 / 6\)

\section*{Hints:}
- Notice 4 is a factor of \(\mathbf{1 2}\).
\[
4 \frac{3}{4}+2 \frac{5}{12}
\]

Because 4 is a factor of 12, the least common denominator is \(\mathbf{1 2}\).
- Convert the first fraction to an equivalent fraction with a denominator of 12 : multiply its numerator and denominator by \(\mathbf{1 2 / 4 = 3}\) (note: 4*3=12):
\(4 \frac{3^{* 3}}{4 * 3}+2 \frac{5}{12}=4 \frac{9}{12}+2 \frac{5}{12}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
4 \frac{9}{12}+2 \frac{5}{12}=(4+2) \frac{9+5}{12}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
9+5 \quad 14
\]
https://www.assistments.org/build/prin(4equqent2)/8no7zn2mode=dengg\&on_coff_false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
\begin{tabular}{rll}
12 & & 12 \\
& \(=6+1\) & \(2 / 12\) \\
& \(=\) & 7
\end{tabular}

Enter 7 1/6
132) Problem \#PRAJEB6 "PRAJEB6-224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
5 \\
9- & 5 \\
8
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(85 / 72\)

\section*{Hints:}

\section*{PSABKKR 2.1}


The denominators \(\mathbf{8}\) and \(\mathbf{9}\) have no common factors greater than 1 .
\begin{tabular}{cr}
5 & 5 \\
8 & - \\
9
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.


Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
```

8*9 9*8 72 72

```

Since the second numerator is not greater than the first, we do not have to borrow.
\[
{ }_{9} \frac{45}{-}-1 \frac{40}{72}
\]

Next, group the numerator and whole numbers:
\({ }_{92} \frac{45}{-}-1 \frac{40}{72}=(9-1) \frac{45-40}{72}\)

Now, find the difference in the numerator and in the whole numbers.
PSABKKR 2.3


\[
\frac{45-40}{72}=8 \frac{5}{72}
\]

Enter 8 5/72
133) Problem \#PRAJDMQ "PRAJDMQ - Adding Mixed Numbers"

Find the sum:
\(6 \frac{1}{10}+10 \frac{7}{30}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):

16 1/3

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).
\(6 \frac{1}{10}+10 \frac{7}{30}\)

Because 10 is a factor of 30, the least common denominator is \(\mathbf{3 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of 30: multiply its numerator and denominator by \(\mathbf{3 0 / 1 0 = 3}\) (note: \(10 * 3=30\) ):
\(6 \frac{1 * 3}{10 * 3}+10 \frac{7}{30}=6 \frac{3}{30}+10 \frac{7}{30}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
6 \frac{3}{30}+10 \frac{7}{30}=(6+10) \frac{3+7}{30}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rll}
(6+10) \frac{3+7}{30} & =16 & \frac{10}{30} \\
& =16 & 10 / 30 \\
& =16 & 1 / 3
\end{array}
\]

Enter 16 1/3

\section*{134) Problem \#PRAJDP8 "PRAJDP8 - Adding Mixed Numbers"}

Find the sum:
\[
\stackrel{5}{5-}+\frac{4}{5}-
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
, 10 19/30

\section*{Hints:}
- The denominators 6 and 5 have no common factors greater than 1 .

Because the denominators have no common factors, find the least common denominator by multiplying 6 by 5 :
\[
6 * 5=30
\]

Find equivalent fractions using the denominator 30.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(5 \frac{5 * 5}{6 * 5}+4 \frac{4 * 6}{5 * 6}=5 \frac{25}{30}+4 \frac{24}{30}\)

Next, group the numerator and whole numbers:
\[
5 \frac{25}{30}+4 \frac{24}{30}=(5+4) \frac{25+24}{30}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlcc}
(5+4) \frac{25+24}{30} & =9 & \frac{49}{30} \\
& =9+1 & 19 / 30 \\
& =10 & 19 / 30
\end{array}
\]


\section*{135) Problem \#PRAJDHY "PRAJDHY - Adding Mixed Numbers"}

Find the sum:
\[
10 \frac{1}{8}+6 \frac{11}{24}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

ป \(167 / 12\)

\section*{Hints:}
- Notice 8 is a factor of 24 .
\(101+611\)
\(8 \quad 24\)

Because 8 is a factor of 24, the least common denominator is 24 .
- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by \(24 / 8=3\) (note: \(8 * 3=24\) ):
\(10 \frac{1 * 3}{8^{*} 3}+6 \frac{11}{24}=10 \frac{3}{24}+6 \frac{11}{24}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
10 \frac{3}{24}+6 \frac{11}{24}=(10+6) \frac{3+11}{24}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlc}
(10+6) \frac{3+11}{24} & =16 & \frac{14}{24} \\
& =16 & 14 / 24 \\
& =16 & 7 / 12
\end{array}
\]

Enter 16 7/12

\section*{136) Problem \#PRAJDJ7 "PRAJDJ7 - Adding Mixed Numbers"}

Find the sum:
\[
3 \frac{7}{12}+1 \frac{7}{36}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(\sqrt{ }\) 7/9

\section*{Hints:}
- Notice 12 is a factor of 36.
\(3 \frac{7}{12}+1 \frac{7}{36}\)

Because 12 is a factor of 36, the least common denominator is 36 .
- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by \(36 / 12=3\) (note: \(12 * 3=36\) ):
\[
3 \frac{7 * 3}{12 * 3}+1 \frac{7}{36}=3 \frac{21}{36}+1 \frac{7}{36}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\(3 \frac{21}{36}+1 \frac{7}{36}=(3+1) \frac{21+7}{36}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rll}
(3+1) \frac{21+7}{36} & =4 & \frac{28}{36} \\
& =4 & 28 / 36 \\
& =4 & 7 / 9
\end{array}
\]

Enter 4 7/9

\section*{137) Problem \#PRAJDNE "PRAJDNE - Adding Mixed Numbers"}

Find the sum:
\[
9 \frac{5}{11}+1 \frac{9}{10}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )


\section*{Exact Match (case sensitive):}

11 39/110

\section*{Hints:}
- The denominators 11 and \(\mathbf{1 0}\) have no common factors greater than 1 .
\(9 \frac{5}{11}+1 \frac{9}{10}\)

Because the denominators have no common factors, find the least common denominator by multiplying 11 by 10:
\[
11 * 10=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent
fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(9 \frac{5 * 10}{11 * 10}+1 \frac{9 * 11}{10 * 11}=9 \frac{50}{110}+1 \frac{99}{110}\)

Next, group the numerator and whole numbers:
\[
9 \frac{50}{110}+1 \frac{99}{110}=(9+1) \frac{50+99}{110}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
(9+1) \frac{50+99}{110} & =10 \frac{149}{110} \\
& =10+1 \\
& 39 / 110 \\
& =11
\end{aligned} 39 / 110
\]

Enter 11 39/110
138) Problem \#PRAJD9N "PRAJD9N - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
10 \frac{2}{-}-7 \frac{1}{22}
\]
 between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
3 3/22
Hints:
- Notice 11 is a factor of 22.
\[
10 \frac{2}{11}-7 \frac{1}{22}
\]

Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by 22/11=2 (note: \(11 * 2=22\) ):
\(102 * 2-71=104-71\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{4}{22}-7 \frac{1}{22}=(10-7) \frac{4-1}{22}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((10-7) \frac{4-1}{22}=3 \frac{3}{22}\)

Enter 3 3/22

\section*{139) Problem \#PRAJEBV "PRAJEBV - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\(1 \quad 1\)
\(10--4-\)
\(6 \quad 18\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(61 / 9\)
Hints:
- Notice 6 is a factor of \(\mathbf{1 8}\).
\(10--4 \frac{1}{18}\)

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):
\[
101 * 3-41=103-41
\]

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{10}{ }_{18}^{3}-4 \frac{1}{18}\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{3}{18}-4 \frac{1}{18}=(10-4) \frac{3-1}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\(\begin{array}{rlr}(10-4) \frac{3-1}{18} & =6 \frac{2}{18} \\ & =6 \quad 1 / 9\end{array}\)
Enter 6 1/9
140) Problem \#PRAJDPJ "PRAJDPJ - Adding Mixed Numbers"

Find the sum:
\(4 \frac{1}{5}+6 \frac{1}{2}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
v 10 7/10

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\(4 \frac{1}{5}+6 \frac{1}{2}\)

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

Find equivalent fractions using the denominator 10.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(4 \frac{1 * 2}{5 * 2}+6 \frac{1 * 5}{2 * 5}=4 \frac{2}{10}+6 \frac{5}{10}\)

Next, group the numerator and whole numbers:
\[
4 \frac{2}{10}+6 \frac{5}{10}=(4+6) \frac{2+5}{10}
\]

Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(4+6) \frac{2+5}{10}=10 \frac{7}{10}
\]

Enter 10 7/10
141) Problem \#PRAJDNK "PRAJDNK - Adding Mixed Numbers"

Find the sum:
https://www.assistments.org/build/print/sequence/809734?mode=debug\&op_scaf=false\&00__hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false \(10-+6-\)
\(8 \quad 9\)

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

17 23/72

\section*{Hints:}
- The denominators 8 and 9 have no common factors greater than 1.
\[
\begin{array}{r}
7 \\
10- \\
8 \\
8
\end{array}
\]
\[
8 * 9=72
\]

Find equivalent fractions using the denominator 72.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(10 \frac{7 * 9}{8 * 9}+6 \frac{4 * 8}{9 * 8}=10 \frac{63}{72}+6 \frac{32}{72}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
(10+6) \frac{63+32}{72} & =16 \frac{95}{72} \\
& =16+1 \\
& =17
\end{aligned}
\]

Enter 17 23/72

\section*{142) Problem \#PRAJDMY "PRAJDMY - Adding Mixed Numbers"}

Find the sum:
\begin{tabular}{c}
1 \\
\(6-\) \\
3
\end{tabular}\(+\frac{1}{6}\)

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
v \(131 / 2\)

\section*{Hints:}
- Notice 3 is a factor of \(\mathbf{6}\).
1
\(6-\)
3

Because 3 is a factor of 6, the least common denominator is \(\mathbf{6}\).
- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by \(6 / 3=2\) (note: \(3 * 2=6\) ):
\(6 \frac{1 * 2}{3^{* 2}}+\underset{6}{7-}=\underset{6}{6-}+\underset{6}{7-}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\(6 \frac{2}{6}+7 \frac{1}{6}=(6+7) \frac{2+1}{6}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
&(6+7) \frac{2+1}{6}=13 \quad \frac{3}{6} \\
&=13 \\
& 3 / 6 \\
&=13 \\
& 1 / 2
\end{aligned}
\]

Enter 13 1/2

\section*{143) Problem \#PRAJD9K "PRAJD9K - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\[
10-4 \frac{1}{6}-4 \frac{1}{18}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space https:|\$2

Exact Match (case sensitive):
\(61 / 9\)

\section*{Hints:}
- Notice \(\mathbf{6}\) is a factor of \(\mathbf{1 8}\).
\begin{tabular}{cc}
1 & \(-4 \frac{1}{-}\) \\
6 & 18
\end{tabular}

Because 6 is a factor of 18, the least common denominator is 18 .
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):
\[
101 * 3-41=103-41
\]

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{3}{18}-4 \frac{1}{18}=(10-4) \frac{3-1}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlr}
\((10-4) \frac{3-1}{18}\) & \(=6 \frac{2}{18}\) \\
& \(=6 \quad 1 / 9\)
\end{tabular}

Enter 6 1/9

\section*{144) Problem \#PRAJEBP "PRAJEBP - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\(6 \stackrel{1}{-}-2 \frac{1}{18}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(41 / 9\)
Hints:
- Notice 6 is a factor of \(\mathbf{1 8}\).
\[
6 \frac{1}{6}-2 \frac{1}{18}
\]

Because 6 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{6}{ }_{18}^{3}-2_{18}\)

Next, group the whole number terms and put both fractions together over the common denominator:
\(6 \frac{3}{18}-2 \frac{1}{18}=(6-2) \frac{3-1}{18}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
(6-2) \(\begin{array}{rlr}\frac{3-1}{18} & =4 & \frac{2}{18} \\ & =4 & 1 / 9\end{array}\)
Enter 4 1/9
145) Problem \#PRAJEEH "PRAJEEH - 224054 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
8 \\
9 & 2 \\
9 & -3
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 438 / 63\)

\section*{Hints:}
- The denominators 9 and 7 have no common factors greater than 1 .
\(7 \stackrel{8}{-}-3 \frac{2}{7}\)

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :
\[
9 * 7=63
\]

Find equivalent fractions using the denominator 63.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(7 \frac{8 * 7}{9 * 7}-3 \frac{2 * 9}{7 * 9}=7 \frac{56}{63}-3 \frac{18}{63}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\({ }_{7}^{7}-33_{63}^{56}\)

Next, group the numerator and whole numbers:
\({ }_{7}{ }_{63}^{56}-3 \frac{18}{63}=(7-3) \frac{56-18}{63}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((7-3) \frac{56-18}{63}=4 \frac{38}{63}\)

Enter 4 38/63

\section*{146) Problem \#PRAJDKJ "PRAJDKJ - Adding Mixed Numbers"}

Find the sum:
\(5 \underset{5}{4-}+9 \underset{10}{-}\)

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
ง \(157 / 10\)

\section*{Hints:}
- Notice 5 is a factor of \(\mathbf{1 0}\).
\[
54+99
\]

Because 5 is a factor of 10, the least common denominator is \(\mathbf{1 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 0}\) : multiply its numerator and denominator by \(\mathbf{1 0 / 5 = 2}\) (note: \(5 * 2=10\) ):
\(5 \frac{4^{*} 2}{5 * 2}+9 \frac{9}{10}=5 \frac{8}{10}+9 \frac{9}{10}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\[
5 \frac{8}{10}+9 \frac{9}{10}=(5+9) \frac{8+9}{10}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rlr}
(5+9) \frac{8+9}{10} & =14 \frac{17}{10} \\
& =14+1 & 7 / 10 \\
& =15 & 7 / 10
\end{array}
\]

Enter 15 7/10
147) Problem \#PRAJDMT "PRAJDMT - Adding Mixed Numbers"

Find the sum:


Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
, \(65 / 6\)

\section*{Hints:}
- Notice \(\mathbf{9}\) is a factor of \(\mathbf{1 8}\).
\[
2 \frac{5}{9}+4 \frac{5}{18}
\]

Because 9 is a factor of 18, the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and
denominator by 18/9=2 (note: \(9 * 2=18\) ):
\(2 \frac{5^{*} 2}{9 * 2}+4 \frac{5}{18}=2 \frac{10}{18}+4 \frac{5}{18}\)

Then, group the whole number terms and put both fractions together over the common denominator:
\(2 \frac{10}{18}+4 \frac{5}{18}=(2+4) \frac{10+5}{18}\)

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rll}
(2+4) \frac{10+5}{18} & =6 & \frac{15}{18} \\
& =6 & 15 / 18 \\
& =6 & 5 / 6
\end{array}
\]

Enter 6 5/6

\section*{148) Problem \#PRAJEB9 "PRAJEB9-224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{r}
2 \\
8-5- \\
3
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

Exact Match (case sensitive):
35/12

\section*{Hints:}

\section*{PSABKKR 1.1}


The denominators 3 and \(\mathbf{4}\) have no common factors greater than 1 .
\[
\begin{array}{rr}
2 \\
8 & -5- \\
3 & 4 \\
\hline
\end{array}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 3 by 4 :
\[
3 * 4=12
\]

Find equivalent fractions using the denominator 12.

\section*{PSABKKR 1.2}

Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(8 \frac{2 * 4}{3 * 4}-5 \frac{1 * 3}{4 * 3}=8 \frac{8}{12}-5 \frac{3}{12}\)

Since the second numerator is not greater than the first, we do not have to borrow.
\(8 \frac{8}{-}-5_{12} \frac{3}{-}\)

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.


Subtracting gives:
\[
(8-5)^{8-3}=3 \xrightarrow{5}
\]


Enter 3 5/12
149) Problem \#PRAJDN7 "PRAJDN7 - Adding Mixed Numbers"

Find the sum:
\[
9 \frac{7}{12}+8 \frac{4}{11}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

\section*{Hints:}
- The denominators \(\mathbf{1 2}\) and \(\mathbf{1 1}\) have no common factors greater than 1 .
\[
9 \frac{7}{12}+8 \frac{4}{11}
\]

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11:
\[
12 * 11=132
\]

Find equivalent fractions using the denominator 132.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(9 \frac{7 * 11}{12 * 11}+8 \frac{4^{*} 12}{11^{*} 12}=9 \frac{77}{132}+8 \frac{48}{132}\)

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(9+8)^{77+48}=17
\]


Enter 17 125/132

\section*{150) Problem \#PRAJEAF "PRAJEAF - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\[
9-4 \frac{1}{5}-4 \frac{1}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

\section*{Hints:}
- Notice 5 is a factor of \(\mathbf{1 0}\).
\[
9-4 \frac{1}{5}-4 \frac{1}{10}
\]

Because 5 is a factor of 10, the least common denominator is \(\mathbf{1 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 0}\) : multiply its numerator and denominator by \(\mathbf{1 0 / 5 = 2}\) (note: \(5 * 2=10\) ):
\(9 \frac{4 * 2}{5 * 2}-4 \frac{1}{10}=9 \frac{8}{10}-4 \frac{1}{10}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{8}{10}-4 \frac{1}{10}=(9-4) \frac{8-1}{10}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

\((9-4) \frac{8-1}{10}=5 \frac{7}{10}\)

Enter \(57 / 10\)
151) Problem \#PRAJEBA "PRAJEBA - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
8 \frac{3}{7}-2 \frac{1}{14}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
\(\sqrt{ } 65 / 14\)

\section*{Hints:}
- Notice 7 is a factor of \(\mathbf{1 4}\).
\[
8 \frac{3}{7}-2 \frac{1}{14}
\]

Because 7 is a factor of 14, the least common denominator is 14 .
- Convert the first fraction to an equivalent fraction with a denominator of 14 : multiply its numerator and denominator by \(14 / 7=2\) (note: \(7 * 2=14\) ):
\[
8 \frac{3 * 2}{7 * 2}-2 \frac{1}{14}=8 \frac{6}{14}-2 \frac{1}{14}
\]

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(8 \frac{6}{14}-2 \frac{1}{14}=(8-2) \frac{6-1}{14}\)

Now find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((8-2) \frac{6-1}{14}=6 \frac{5}{14}\)

Enter 6 5/14
152) Problem \#PRAJEAT "PRAJEAT - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
10 \frac{3}{8}-4 \frac{1}{24}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
, \(61 / 3\)

\section*{Hints:}
- Notice 8 is a factor of 24 .
\(10 \frac{3}{8}-4 \frac{1}{24}\)

Because 8 is a factor of 24, the least common denominator is 24 .
- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by \(\mathbf{2 4 / 8 = 3}\) (note: \(8 * 3=24\) ):
\(10 \frac{3^{* 3}}{8 * 3}-4 \frac{1}{24}=10 \frac{9}{24}-4 \frac{1}{24}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:
\(10 \frac{9}{24}-4 \frac{1}{24}=(10-4) \frac{9-1}{24}\)
- Subtracting gives:
\begin{tabular}{rlr}
\((10-4) \frac{9-1}{24}\) & \(=6 \frac{8}{24}\) \\
& \(=6 \quad 1 / 3\)
\end{tabular}

Enter 6 1/3

\section*{153) Problem \#PRAJEED "PRAJEED - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\(4 \frac{2}{7}-1 \frac{5}{12}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space
between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

」 \(273 / 84\)

\section*{Hints:}
- The denominators 7 and \(\mathbf{1 2}\) have no common factors greater than 1 .
\(4 \frac{2}{7}-1 \frac{5}{12}\)

Because the denominators have no common factors, find the least common denominator by multiplying 7 by 12 :
\[
7 * 12=84
\]

Find equivalent fractions using the denominator 84.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(4 \frac{2 * 12}{7 * 12}-1 \frac{5 * 7}{12 * 7}=4 \frac{24}{84}-1 \frac{35}{84}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 4 , and represent it in fractional form using the common denominator: \(4=3+1=\) 3+84/84


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

108-35 73
\((3-1)-\frac{}{84}=2-\)

Enter 2 73/84

\section*{154) Problem \#PRAJDJZ "PRAJDJZ - Adding Mixed Numbers"}

Find the sum:
\[
4 \frac{7}{10}+3 \frac{11}{30}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

ป \(81 / 15\)

\section*{Hints:}
- Notice 10 is a factor of 30.
\[
4 \frac{7}{10}+3 \frac{11}{30}
\]

Because 10 is a factor of 30, the least common denominator is 30.
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{3 0}\) : multiply its numerator and denominator by \(\mathbf{3 0 / 1 0}=3\) (note: \(10 * 3=30\) ):
\[
4 \frac{7 * 3}{10 * 3}+3 \frac{11}{30}=4 \frac{21}{30}+3 \frac{11}{30}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\(4 \frac{21}{30}+3 \frac{11}{30}=(4+3) \frac{21+11}{30}\)


Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{aligned}
& (4+3) \frac{21+11}{30}=7 \frac{32}{30} \\
& =7+1 \quad 2 / 30 \\
& =81 / 15
\end{aligned}
\]

Enter 8 1/15

\section*{155) Problem \#PRAJECX "PRAJECX - 224054 - Subtracting Mixed Numbers"}

Find the difference:
\[
3_{1}-21
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(11 / 6\)

\section*{Hints:}
- The denominators 2 and 3 have no common factors greater than 1 .
\begin{tabular}{rr}
1 & 1 \\
\(2-\) & \(2-\) \\
2
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :
\[
2 * 3=6
\]

Find equivalent fractions using the denominator 6.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(3 \frac{1 * 3}{2 * 3}-2 \frac{1 * 2}{3 * 2}=3 \frac{3}{6}-2 \frac{2}{6}\)

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:
\[
3 \underset{6}{3}-2 \frac{2}{6}=(3-2) \frac{3-2}{6}
\]

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((3-2) \frac{3-2}{6}=1 \frac{1}{6}\)
156) Problem \#PRAJDM5 "PRAJDM5 - Adding Mixed Numbers"

Find the sum:
\[
8 \frac{9}{11}+6 \frac{1}{10}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}

14 101/110

\section*{Hints:}
- The denominators 11 and 10 have no common factors greater than 1.
\(8 \frac{9}{11}+6 \frac{1}{10}\)

Because the denominators have no common factors, find the least common denominator by multiplying 11 by 10:
\[
11 * 10=110
\]

Find equivalent fractions using the denominator 110.
- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\[
8 \frac{9 * 10}{11 * 10}+6 \frac{1 * 11}{10 * 11}=8 \frac{90}{110}+6 \frac{11}{110}
\]

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.
- Summing the numerator and the whole numbers gives:
\[
(8+6) \frac{90+11}{110}=14 \frac{101}{110}
\]

\section*{157) Problem \#PRAJDKX "PRAJDKX - Adding Mixed Numbers"}

Find the sum:
\(8 \stackrel{1}{-}+6 \frac{1}{-}\)

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(142 / 9\)

\section*{Hints:}
- Notice \(\mathbf{6}\) is a factor of 18.
\(8 \frac{1}{6}+6 \frac{1}{18}\)

Because 6 is a factor of 18, the least common denominator is 18 .
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 8}\) : multiply its numerator and denominator by \(18 / 6=3\) (note: \(6 * 3=18\) ):
\(8 \frac{1 * 3}{6 * 3}+6 \frac{1}{18}=8 \frac{3}{18}+6 \frac{1}{18}\)

Then, group the whole number terms and put both fractions together over the common denominator:
```

https://www.assistments.org/build/print/sequence/809734?mode=debug\&op_scaf=false\&op_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false
8- + 6- = (8+6)
18 18 18

```

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rll}
(8+6) \frac{3+1}{18} & =14 & \frac{4}{18} \\
& =14 & 4 / 18 \\
& =14 & 2 / 9
\end{array}
\]

Enter 14 2/9
158) Problem \#PRAJD88 "PRAJD88-224053 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{rrr}
92 & -1 & 5 \\
- & \\
9 & 18
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
」 \(717 / 18\)

\section*{Hints:}
- Notice 9 is a factor of \(\mathbf{1 8}\).
\[
9 \stackrel{2}{9}-1 \frac{5}{18}
\]

Because 9 is a factor of \(\mathbf{1 8}\), the least common denominator is \(\mathbf{1 8}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 8}\) : multiply its numerator and denominator by \(18 / 9=2\) (note: \(9 * 2=18\) ):
\(9 \frac{2 * 2}{9 * 2}-1 \frac{5}{18}=9 \frac{4}{18}-1 \frac{5}{18}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 9 , and represent it in fractional form using the common denominator: \(9=8+1=\) 8+18/18


Next, group the whole number terms and put both fractions together over the common denominator:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:

22-5 17
\((8-1) \frac{}{18}=7 \overline{18}\)

Enter 7 17/18

\section*{159) Problem \#PRAJEA8 "PRAJEA8 - 224053 - Subtracting Mixed Numbers"}

Find the difference:
\[
\begin{array}{rr}
1 & 7 \\
8- & -7- \\
2 & 8
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example \(2 / 7\) ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
\(5 / 8\)

\section*{Hints:}
- Notice 2 is a factor of 8.
\[
\begin{array}{cr}
1 & 7 \\
8- & -7- \\
2 & 8
\end{array}
\]

Because 2 is a factor of 8, the least common denominator is \(\mathbf{8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 8: multiply its numerator and denominator by \(8 / 2=4\) (note: \(2 * 4=8\) ):
\begin{tabular}{|c|c|c|c|}
\hline 1*4 & 7 & 4 & 7 \\
\hline \multicolumn{4}{|l|}{\multirow[t]{2}{*}{\[
8--7-=8--7-
\]}} \\
\hline & & & \\
\hline
\end{tabular}

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: \(8=7+1=\) 7+8/8


Next, group the whole number terms and put both fractions together over the common denominator:
\(7 \frac{12}{8}-7 \frac{7}{8}=(7-7) \frac{12-7}{8}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\(\begin{aligned}(7-7) \frac{12-7}{8} & =0 \frac{5}{8} \\ & =\quad 5 / 8\end{aligned}\)

Enter 5/8
160) Problem \#PRAJEBR "PRAJEBR - 224053 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{rr}
1 & \\
\(8-\) & -7 \\
8 & - \\
24
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(25 / 6\)

\section*{Hints:}
- Notice 8 is a factor of 24.
\[
8 \frac{1}{8}-5 \frac{7}{24}
\]

Because 8 is a factor of 24 , the least common denominator is 24 .
- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by \(\mathbf{2 4 / 8 = 3}\) (note: \(8^{* 3=24}\) ):
\(8 \frac{1 * 3}{8 * 3}-5 \frac{7}{24}=8 \frac{3}{24}-5 \frac{7}{24}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: \(8=7+1=\) 7+24/24



Next, group the whole number terms and put both fractions together over the common denominator:


Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((7-5) 27-7=2 \quad 20\)

Enter 2 5/6
161) Problem \#PRAJEA3 "PRAJEA3-224053 - Subtracting Mixed Numbers"

Find the difference:
\(10 \frac{2}{11}-4 \frac{5}{22}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

\section*{Exact Match (case sensitive):}
\(\sqrt{ }\) 21/22

\section*{Hints:}
- Notice \(\mathbf{1 1}\) is a factor of 22.
\[
10 \frac{2}{11}-4 \frac{5}{22}
\]

Because 11 is a factor of 22, the least common denominator is 22.
- Convert the first fraction to an equivalent fraction with a denominator of 22: multiply its numerator and denominator by 22/11=2 (note: \(11 * 2=22\) ):
\[
10 \frac{2 * 2}{11 * 2}-4 \frac{5}{22}=10 \frac{4}{22}-4 \frac{5}{22}
\]
 whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+22/22


Next, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{26}{22}-4 \frac{5}{22}=(9-4) \frac{26-5}{22}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(9-4) \frac{26-5}{22}=5 \frac{21}{22}
\]

Enter 5 21/22
162) Problem \#PRAJED2 "PRAJED2-224054 - Subtracting Mixed Numbers"

Find the difference:
\begin{tabular}{cr}
1 & 1 \\
\(5-\) & \(-4-\) \\
5 & 2
\end{tabular}

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

7/10

\section*{Hints:}
- The denominators 5 and 2 have no common factors greater than 1 .
\begin{tabular}{rr}
1 \\
\(5-\) & \(-4 \frac{1}{2}\)
\end{tabular}

Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :
\[
5 * 2=10
\]

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
\(5 \frac{1 * 2}{5 * 2}-4 \frac{1 * 5}{2 * 5}=5 \frac{2}{10}-4 \frac{5}{10}\)

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 5 , and represent it in fractional form using the common denominator: \(5=4+1=\) 4+10/10
\(4 \frac{10+2}{10}-4 \frac{5}{10}\)

Next, group the numerator and whole numbers:
\(4 \frac{12}{10}-4 \frac{5}{10}=(4-4) \frac{12-5}{10}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\begin{tabular}{rlc}
\((4-4) \frac{12-5}{10}\) & \(=0 \quad \frac{7}{10}\) \\
& \(=c\) & \(7 / 10\)
\end{tabular}

Enter 7/10

\section*{163) Problem \#PRAJDH9 "PRAJDH9 - Adding Mixed Numbers"}

Find the sum:
\[
6 \frac{1}{12}+9 \frac{1}{36}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}
, \(151 / 9\)

\section*{Hints:}
- Notice 12 is a factor of 36 .
\[
6-1
\]


Because 12 is a factor of 36, the least common denominator is 36 .
- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by \(\mathbf{3 6} / \mathbf{1 2 = 3}\) (note: \(12 * 3=36\) ):
\[
6 \frac{1 * 3}{12 * 3}+9 \frac{1}{36}=6 \frac{3}{36}+9 \frac{1}{36}
\]

Then, group the whole number terms and put both fractions together over the common denominator:
\[
6 \frac{3}{36}+9 \frac{1}{36}=(6+9) \frac{3+1}{36}
\]

Now, sum the numerator and the whole numbers.
- Summing the numerator and the whole numbers gives:
\[
\begin{array}{rll}
(6+9) \frac{3+1}{36} & =15 & \frac{4}{36} \\
& =15 & 4 / 36 \\
& =15 & 1 / 9
\end{array}
\]

Enter 15 1/9
164) Problem \#PRAJD9E "PRAJD9E - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
3 \frac{2}{5}-1 \frac{7}{10}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
17/10

\section*{Hints:}
- Notice 5 is a factor of \(\mathbf{1 0}\).
\[
3-\frac{2}{5}-1 \frac{7}{10}
\]

Because 5 is a factor of \(\mathbf{1 0}\), the least common denominator is \(\mathbf{1 0}\).
- Convert the first fraction to an equivalent fraction with a denominator of \(\mathbf{1 0}\) : multiply its numerator and

\[
3 \frac{2 * 2}{5 * 2}-1 \frac{7}{10}=3 \frac{4}{10}-1 \frac{7}{10}
\]

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 3 , and represent it in fractional form using the common denominator: \(3=2+1=\) 2+10/10
2 \begin{tabular}{c}
\(\frac{10+4}{10}-1 \frac{7}{10}\) \\
\hline
\end{tabular}

Next, group the whole number terms and put both fractions together over the common
denominator:
\(2 \frac{14}{10}-1 \frac{7}{10}=(2-1) \frac{14-7}{10}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
(2-1) \frac{14-7}{10}=1 \frac{7}{10}
\]

Enter 1 7/10
165) Problem \#PRAJD84 "PRAJD84-224053 - Subtracting Mixed Numbers"

Find the difference:
\[
\begin{array}{rr}
1 & 7 \\
10- & -7- \\
2 & 8
\end{array}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

」 \(25 / 8\)

\section*{Hints:}
- Notice \(\mathbf{2}\) is a factor of \(\mathbf{8}\).
\[
\begin{array}{rr}
1 & 7 \\
10- & -7- \\
2 & 8
\end{array}
\]

Because 2 is a factor of \(\mathbf{8}\), the least common denominator is \(\mathbf{8}\).
- Convert the first fraction to an equivalent fraction with a denominator of 8: multiply its numerator and denominator by \(8 / 2=4\) (note: \(2 * 4=8\) ):

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 10, and represent it in fractional form using the common denominator: \(10=9+1=\) 9+8/8


Next, group the whole number terms and put both fractions together over the common denominator:
\(9 \frac{12}{8}-7 \frac{7}{8}=(9-7) \frac{12-7}{8}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\((9-7) \frac{12-7}{8}=2 \frac{5}{8}\)

Enter 2 5/8
166) Problem \#PRAJD9C "PRAJD9C - 224053 - Subtracting Mixed Numbers"

Find the difference:
\[
7 \frac{9}{10}-4 \frac{7}{30}
\]

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )

\section*{Exact Match (case sensitive):}

3 2/3

\section*{Hints:}
- Notice \(\mathbf{1 0}\) is a factor of \(\mathbf{3 0}\).

```

    7-4
    10
                                30
    ```

Because 10 is a factor of 30 , the least common denominator is 30 .
- Convert the first fraction to an equivalent fraction with a denominator of 30: multiply its numerator and denominator by \(\mathbf{3 0 / 1 0 = 3}\) (note: \(10 * 3=30\) ):
\[
7 \frac{9 * 3}{10 * 3}-4 \frac{7}{30}=7 \frac{27}{30}-4 \frac{7}{30}
\]

Since the second numerator is not greater than the first, we do not have to borrow.

Next, group the whole number terms and put both fractions together over the common denominator:
\(7 \frac{27}{30}-4 \frac{7}{30}=(7-4) \frac{27-7}{30}\)

Now, find the difference in the numerator and in the whole numbers.
- Subtracting gives:
\[
\begin{array}{rlr}
(7-4) \frac{27-7}{30} & =3 & \frac{20}{30} \\
& =3 & 2 / 3
\end{array}
\]

Enter 3 2/3
167) Problem \#PRAJD8Y "PRAJD8Y - 224053 - Subtracting Mixed Numbers"

Find the difference:
\(5-3 \frac{5}{6}\)

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example \(35 / 8\) )
Exact Match (case sensitive):
, \(25 / 9\)
Hints:
- Notice \(\mathbf{6}\) is a factor of \(\mathbf{1 8}\).
\(6 \quad 18\)
```

Because 6 is a factor of $\mathbf{1 8}$, the least common denominator is $\mathbf{1 8}$.

- Convert the first fraction to an equivalent fraction with a denominator of 18 : multiply its numerator and denominator by $18 / 6=3$ (note: $6 * 3=18$ ):

$$
5 \frac{5 * 3}{6 * 3}-3 \frac{5}{18}=5 \frac{15}{18}-3 \frac{5}{18}
$$

Since the second numerator is not greater than the first, we do not have to borrow.

Next, group the whole number terms and put both fractions together over the common denominator:
$5 \frac{15}{18}-3 \frac{5}{18}=(5-3) \frac{15-5}{18}$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:

$$
\begin{array}{rlrl}
(5-3) \frac{15-5}{18} & =2 \frac{10}{18} \\
& =2 & 5 / 9
\end{array}
$$

Enter 2 5/9

## 168) Problem \#PRAJDKZ "PRAJDKZ - Adding Mixed Numbers"

Find the sum:

$$
5 \frac{5}{8}+8 \frac{1}{24}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

, $132 / 3$

## Hints:

- Notice 8 is a factor of 24.

$5 \frac{5}{8}+8 \frac{1}{24}$

Because 8 is a factor of 24 , the least common denominator is 24 .

- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by $\mathbf{2 4 / 8 = 3}$ (note: $8 * 3=24$ ):
$5 \frac{5^{* 3}}{8^{* 3}}+8 \frac{1}{24}=5 \frac{15}{24}+8 \frac{1}{24}$

Then, group the whole number terms and put both fractions together over the common denominator:
$\frac{5}{24}+\frac{81}{24}-(5+8) \frac{15+1}{24}$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rll}
(5+8) \frac{15+1}{24} & =13 & \frac{16}{24} \\
& =13 & 16 / 24 \\
& =13 & 2 / 3
\end{array}
$$

Enter 13 2/3

## 169) Problem \#PRAJDP2 "PRAJDP2 - Adding Mixed Numbers"

Find the sum:
$1 \frac{1}{-}+10 \frac{1}{-}$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

11 5/6

## Hints:

- The denominators 2 and $\mathbf{3}$ have no common factors greater than 1 .

$$
\begin{array}{rr}
1 \\
1 \frac{1}{2} & +10 \frac{1}{3}
\end{array}
$$

$$
2 * 3=6
$$

Find equivalent fractions using the denominator 6.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$1 \frac{1 * 3}{2 * 3}+10 \frac{1 * 2}{3 * 2}=1 \frac{3}{6}+10 \frac{2}{6}$

Next, group the numerator and whole numbers:

$$
13+102=(1+10) 3+2
$$

Now, sum the numerator and whole numbers.

- Summing the numerator and the whole numbers gives:

$$
(1+10) \frac{3+2}{6}=11 \frac{5}{6}
$$

Enter 11 5/6

## 170) Problem \#PRAJDJB "PRAJDJB - Adding Mixed Numbers"

Find the sum:

$$
9 \frac{11}{12}+3 \frac{11}{36}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
$132 / 9$

## Hints:

- Notice 12 is a factor of 36.
$9 \frac{11}{12}+3 \frac{11}{36}$

Because 12 is a factor of 36, the least common denominator is 36 .

- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by $\mathbf{3 6} / \mathbf{1 2 = 3}$ (note: $12 * 3=36$ ):
$9 \frac{11 * 3}{12 * 3}+3 \frac{11}{36}=9 \frac{33}{36}+3 \frac{11}{36}$

Then, group the whole number terms and put both fractions together over the common denominator:

$$
9 \frac{33}{36}+3 \frac{11}{36}=(9+3) \frac{33+11}{36}
$$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{aligned}
(9+3) \frac{33+11}{36} & =12 \frac{44}{36} \\
& =12+1 \\
& 8 / 36 \\
& 13
\end{aligned}
$$

Enter 13 2/9

## 171) Problem \#PRAJEDY "PRAJEDY - 224054 - Subtracting Mixed Numbers"

Find the difference:

$$
\begin{array}{rr}
5 \\
10- & 1 \\
8 & - \\
9
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

ป $837 / 72$

## Hints:

- The denominators $\mathbf{8}$ and $\mathbf{9}$ have no common factors greater than 1 .
$10-2 \frac{1}{5}-9$

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :

$$
8 * 9=72
$$

Find equivalent fractions using the denominator 72.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$10 \frac{5 * 9}{8 * 9}-2 \frac{1 * 8}{9 * 8}=10 \frac{45}{72}-2 \frac{8}{72}$

Since the second numerator is not greater than the first, we do not have to borrow.

$$
{ }_{10}{ }_{72}^{45}-2 \frac{8}{72}
$$

Next, group the numerator and whole numbers:
${ }_{10} \frac{45}{-}-2 \frac{8}{72}=(10-2) \frac{45-8}{72}$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:

```
        45-8 37
\((10-2) \frac{}{72}=8 \quad \frac{-}{72}\)
    \(72 \quad 72\)
```

Enter $8 \mathbf{3 7 / 7 2}$

## 172) Problem \#PRAJEC5 "PRAJEC5-224054 - Subtracting Mixed Numbers"

Find the difference:

$$
6 \frac{4}{6-} \begin{array}{r}
1 \\
5
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

3 3/10

## Hints:

- The denominators 5 and 2 have no common factors greater than 1.

$$
6-1
$$



Because the denominators have no common factors, find the least common denominator by multiplying 5 by 2 :

$$
5 * 2=10
$$

Find equivalent fractions using the denominator $\mathbf{1 0}$.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:

$$
6 \frac{4 * 2}{5 * 2}-3 \frac{1 * 5}{2 * 5}=6 \frac{8}{10}-3 \frac{5}{10}
$$

Since the second numerator is not greater than the first, we do not have to borrow.
$6{ }_{10}{ }^{\frac{8}{-}}-3 \frac{5}{10}$

Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:

$$
8-5 \quad 3
$$

$$
(6-3)=3
$$

$$
10 \quad 10
$$

Enter 3 3/10

## 173) Problem \#PRAJDK7 "PRAJDK7 - Adding Mixed Numbers"

Find the sum:
$8 \stackrel{1}{-}+1 \frac{1}{-}$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

9 3/10

Hints:

- Notice 5 is a factor of $\mathbf{1 0}$.
$8 \frac{1}{5}+1 \frac{1}{10}$

Because 5 is a factor of $\mathbf{1 0}$, the least common denominator is $\mathbf{1 0}$.

- Convert the first fraction to an equivalent fraction with a denominator of $\mathbf{1 0}$ : multiply its numerator and denominator by $\mathbf{1 0 / 5 = 2}$ (note: $5^{*} 2=10$ ):
$8 \frac{1 * 2}{5 * 2}+1 \frac{1}{10}=8 \frac{2}{10}+1 \frac{1}{10}$

Then, group the whole number terms and put both fractions together over the common denominator:

$$
8 \frac{2}{10}+1 \frac{1}{10}=(8+1) \frac{2+1}{10}
$$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
(8+1) \frac{2+1}{10}=9 \frac{3}{10}
$$

Enter 9 3/10

## 174) Problem \#PRAJDPN "PRAJDPN - Adding Mixed Numbers"

Find the sum:

$$
\begin{gathered}
1 \\
1- \\
8
\end{gathered}+\begin{array}{r}
2 \\
9
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

, $725 / 72$

## Hints:

- The denominators $\mathbf{8}$ and $\mathbf{9}$ have no common factors greater than 1 .

12

8
9

Because the denominators have no common factors, find the least common denominator by multiplying 8 by 9 :

$$
8 * 9=72
$$

Find equivalent fractions using the denominator 72.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:

$$
1 \frac{1 * 9}{8 * 9}+6 \frac{2 * 8}{9 * 8}=1 \frac{9}{72}+6 \frac{16}{72}
$$

Next, group the numerator and whole numbers:
$1 \frac{9}{72}+6 \frac{16}{72}=(1+6) \frac{9+16}{72}$

Now, sum the numerator and whole numbers.

- Summing the numerator and the whole numbers gives:

$$
(1+6) \frac{9+16}{72}=7 \frac{25}{72}
$$

Enter 7 25/72

## 175) Problem \#PRAJECR "PRAJECR - 224054 - Subtracting Mixed Numbers"

Find the difference:

$$
\begin{array}{rr}
1 & 1 \\
6-- \\
3 & -2
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

## Exact Match (case sensitive):

, $41 / 12$

## Hints:



| 1 | 1 |
| ---: | ---: |
| 3 | - |
| 3 | 4 |

Because the denominators have no common factors, find the least common denominator by multiplying 3 by 4 :

$$
3 * 4=12
$$

Find equivalent fractions using the denominator 12.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$6 \frac{1 * 4}{3 * 4}-2 \frac{1 * 3}{4 * 3}=6 \frac{4}{12}-2 \frac{3}{12}$

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:
(6-2) $\frac{4-3}{12}=4 \frac{1}{12}$

Enter 4 1/12
176) Problem \#PRAJEC3 "PRAJEC3-224054 - Subtracting Mixed Numbers"

Find the difference:

$$
8 \stackrel{1}{-}-6 \frac{2}{-}-\frac{2}{3}
$$

 between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

」 $15 / 6$

## Hints:

- The denominators 2 and $\mathbf{3}$ have no common factors greater than 1 .
$8 \frac{1}{-}-6 \frac{2}{-}$

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :

$$
2 * 3=6
$$

Find equivalent fractions using the denominator 6.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$8 \frac{1 * 3}{2 * 3}-6 \frac{2 * 2}{3^{* 2}}=8-6 \frac{3}{6}-6$

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: $8=7+1=$ 7+6/6


Next, group the numerator and whole numbers:


Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:

$$
(7-6) \frac{9-4}{6}=1 \frac{5}{6}
$$

Enter 1 5/6

## 177) Problem \#PRAJDKR "PRAJDKR - Adding Mixed Numbers"

Find the sum:

$$
\underset{9}{1-}+10 \frac{1}{-} \frac{18}{-}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
11 1/2

## Hints:

- Notice $\mathbf{9}$ is a factor of $\mathbf{1 8}$.

Because 9 is a factor of 18, the least common denominator is 18.

- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by 18/9=2 (note: $9 * 2=18$ ):
$1 \frac{4 * 2}{9 * 2}+10 \frac{1}{18}=1 \frac{8}{18}+10 \frac{1}{18}$

Then, group the whole number terms and put both fractions together over the common denominator:
$1 \frac{8}{18}+10 \frac{1}{18}=(1+10) \frac{8+1}{18}$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlc}
(1+10) \frac{8+1}{18} & =11 & \frac{9}{18} \\
& =11 & 9 / 18 \\
& =11 & 1 / 2
\end{array}
$$

Enter 11 1/2

## 178) Problem \#PRAJDNJ "PRAJDNJ - Adding Mixed Numbers"

Find the sum:


Answers must be in the form of a reduced proper fraction (example $2 / 7$ ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
$91 / 6$

## Hints:

- Notice 9 is a factor of 18.
$2 \frac{1}{9}+7 \frac{1}{18}$

Because 9 is a factor of 18, the least common denominator is 18.

- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and
denominator by 18/9=2 (note: $9 * 2=18$ ):
$2 \frac{1 * 2}{9 * 2}+7 \frac{1}{18}=2 \frac{2}{18}+7 \frac{1}{18}$

Then, group the whole number terms and put both fractions together over the common denominator:

$$
2 \frac{2}{18}+7 \frac{1}{18}=(2+7) \frac{2+1}{18}
$$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlc}
(2+7) \frac{2+1}{18} & =9 & \frac{3}{18} \\
& =9 & 3 / 18 \\
& =9 & 1 / 6
\end{array}
$$

Enter 9 1/6

## 179) Problem \#PRAJECQ "PRAJECQ - 224054 - Subtracting Mixed Numbers"

Find the difference:

$$
\begin{array}{rr}
7 & 5 \\
10- & -9- \\
9 & 7
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

1 4/63

## Hints:

- The denominators 9 and 7 have no common factors greater than 1 .

| 7 | 5 |
| ---: | ---: |
| $10-$ | $-9-$ |
| 9 | 7 |

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :

$$
9 * 7=63
$$

Find equivalent fractions using the denominator 63.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$10 \frac{7 * 7}{9 * 7}-9 \frac{5 * 9}{7 * 9}=10 \frac{49}{63}-9 \frac{45}{63}$

Since the second numerator is not greater than the first, we do not have to borrow.
$10{ }_{63}^{49}-9{ }_{63}^{45}$

Next, group the numerator and whole numbers:
${ }_{10} \frac{49}{-}-9 \frac{45}{63}=(10-9) \frac{49-45}{63}$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:
(10-9) $\frac{49-45}{63}=1 \frac{4}{63}$

Enter 1 4/63
180) Problem \#PRAJDNF "PRAJDNF - Adding Mixed Numbers"

Find the sum:
https://www.assistments.org/build/print/sequence/809734?mode=debug\&op_scaf=false\&dop_hint=false\&op_answer_op=false\&op_answer=false\&op_name=false\&op_buggies=false\&op_sections=false\&short_answers=false

$$
9-+2-
$$

$$
4 \quad 12
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
$115 / 6$

## Hints:

- Notice 4 is a factor of $\mathbf{1 2}$.

$$
9 \frac{1}{4}+2 \frac{7}{12}
$$

- Convert the first fraction to an equivalent fraction with a denominator of 12: multiply its numerator and denominator by $12 / 4=3$ (note: $4 * 3=12$ ):
$9 \frac{1 * 3}{4 * 3}+2 \frac{7}{12}=9 \frac{3}{12}+2 \frac{7}{12}$

Then, group the whole number terms and put both fractions together over the common denominator:

$$
9 \frac{3}{12}+2 \frac{7}{12}=(9+2) \frac{3+7}{12}
$$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rll}
(9+2) \frac{3+7}{12} & =11 & \frac{10}{12} \\
& =11 & 10 / 12 \\
& =11 & 5 / 6
\end{array}
$$

Enter 11 5/6

## 181) Problem \#PRAJDMM "PRAJDMM - Adding Mixed Numbers"

Find the sum:

$$
\begin{gathered}
1 \\
6- \\
3
\end{gathered} \frac{1}{3-}
$$

Answers must be in the form of a reduced proper fraction (example $2 / 7$ ) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

Exact Match (case sensitive):
16 1/2

## Hints:

- Notice 3 is a factor of 6 .
1
$6-$
3

Because 3 is a factor of 6, the least common denominator is $\mathbf{6}$.

- Convert the first fraction to an equivalent fraction with a denominator of $\mathbf{6}$ : multiply its numerator and denominator by $6 / 3=2$ (note: $3 * 2=6$ ):
$6 \frac{1 * 2}{3 * 2}+10 \frac{1}{6}=6 \frac{2}{6}+10 \frac{1}{-}$

Then, group the whole number terms and put both fractions together over the common denominator:
$6 \frac{2}{6}+10 \frac{1}{6}=(6+10) \frac{2+1}{6}$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlc}
(6+10) \frac{2+1}{6} & =16 \quad \frac{3}{6} \\
& =16 & 3 / 6 \\
& =16 & 1 / 2
\end{array}
$$

Enter 16 1/2

## 182) Problem \#PRAJDNN "PRAJDNN - Adding Mixed Numbers"

Find the sum:

$$
9 \frac{7}{12}+9 \frac{7}{36}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
$\sqrt{187 / 9}$

## Hints:

- Notice 12 is a factor of 36.


```
    7 7
9- + 9-
    12 36
```

Because 12 is a factor of 36 , the least common denominator is 36 .

- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by $\mathbf{3 6} / \mathbf{1 2 = 3}$ (note: $12 * 3=36$ ):

$$
9 \frac{7 * 3}{12 * 3}+9 \frac{7}{36}=9 \frac{21}{36}+9 \frac{7}{36}
$$

Then, group the whole number terms and put both fractions together over the common denominator:

$$
921+97=(9+9) 21+7
$$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rll}
(9+9) \frac{21+7}{36} & =18 & \frac{28}{36} \\
& =18 & 28 / 36 \\
& =18 & 7 / 9
\end{array}
$$

Enter 18 7/9

## 183) Problem \#PRAJEA7 "PRAJEA7-224053 - Subtracting Mixed Numbers"

Find the difference:
$3 \stackrel{4}{7}-2 \frac{5}{14}$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
$13 / 14$

## Hints:

- Notice 7 is a factor of $\mathbf{1 4}$.

$$
3 \frac{4}{7}-2 \frac{5}{14}
$$

Because 7 is a factor of 14, the least common denominator is 14.


- Convert the first fraction to an equivalent fraction with a denominator of 14: multiply its numerator and
denominator by $\mathbf{1 4 / 7 = 2}$ (note: $7^{* 2}=14$ ):
$3 \frac{4 * 2}{7 * 2}-2 \frac{5}{14}=3 \frac{8}{14}-2 \frac{5}{14}$

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common
denominator:
$3 \frac{8}{14}-2 \frac{5}{14}=(3-2) \frac{8-5}{14}$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:

$$
(3-2) \frac{8-5}{14}=1 \frac{3}{14}
$$

Enter 1 3/14
184) Problem \#PRAJDM9 "PRAJDM9 - Adding Mixed Numbers"

Find the sum:
$\stackrel{8}{9-}+4 \frac{1}{18}$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
$\sqrt{ } 1317 / 18$

## Hints:

- Notice 9 is a factor of $\mathbf{1 8}$.
$9 \frac{8}{9}+4 \frac{1}{18}$

Because 9 is a factor of $\mathbf{1 8}$, the least common denominator is $\mathbf{1 8}$.

- Convert the first fraction to an equivalent fraction with a denominator of 18: multiply its numerator and denominator by 18/9=2 (note: $9 * 2=18$ ):
$9 \frac{8 * 2}{9 * 2}+4 \frac{1}{18}=9 \frac{16}{18}+4 \frac{1}{18}$

Then, group the whole number terms and put both fractions together over the common denominator:

$$
9 \frac{16}{18}+4 \frac{1}{18}=(9+4) \frac{16+1}{18}
$$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
(9+4) \frac{16+1}{18}=13 \frac{17}{18}
$$

Enter 13 17/18
185) Problem \#PRAJEAK "PRAJEAK - 224053 - Subtracting Mixed Numbers"

Find the difference:

$$
9 \frac{7}{10}-4 \frac{1}{30}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
, $52 / 3$

## Hints:

- Notice $\mathbf{1 0}$ is a factor of $\mathbf{3 0}$.

$$
9 \frac{7}{10}-4 \frac{1}{30}
$$

Because 10 is a factor of 30, the least common denominator is $\mathbf{3 0}$.

- Convert the first fraction to an equivalent fraction with a denominator of $\mathbf{3 0}$ : multiply its numerator and denominator by $\mathbf{3 0} / \mathbf{1 0}=3$ (note: $10 * 3=30$ ):

```
            \(9 \underset{10 * 3}{ }-4 \underset{30}{ }=9 \underset{30}{ }-4 \underset{30}{ }\)
```

Since the second numerator is not greater than the first, we do not have to borrow.
$9{ }_{30}^{21}-4 \frac{1}{30}$

Next, group the whole number terms and put both fractions together over the common denominator:


Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:

$$
\begin{array}{rlrl}
(9-4) \frac{21-1}{30} & =5 & \frac{20}{30} \\
& =5 \quad 2 / 3
\end{array}
$$

Enter 5 2/3

## 186) Problem \#PRAJDH7 "PRAJDH7 - Adding Mixed Numbers"

Find the sum:

$$
\begin{gathered}
\frac{1}{4-}+5- \\
3
\end{gathered}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

- $91 / 2$


## Hints:

- Notice 3 is a factor of 6 .
$4 \frac{1}{3}+5 \frac{1}{6}$

Because 3 is a factor of 6 , the least common denominator is $\mathbf{6}$.

- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by $\mathbf{6 / 3 = 2}$ (note: $3 * 2=6$ ):
$4 \frac{1 * 2}{3^{*} 2}+5 \frac{1}{6}=4 \frac{2}{6}+5 \frac{1}{6}$

Then, group the whole number terms and put both fractions together over the common denominator:
$4 \frac{2}{6}+5 \frac{1}{6}=(4+5) \frac{2+1}{6}$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
(4+5) \frac{2+1}{6}=9 \frac{3}{6}
$$

$$
\begin{array}{ll}
=9 & 3 / 6 \\
=9 & 1 / 2
\end{array}
$$

Enter 9 1/2

## 187) Problem \#PRAJEAV "PRAJEAV - 224053 - Subtracting Mixed Numbers"

Find the difference:
$10 \frac{1}{12}-4 \frac{1}{36}$

Answers must be in the form of a reduced proper fraction (example $2 / 7$ ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)
Exact Match (case sensitive):
, $61 / 18$

## Hints:

- Notice 12 is a factor of 36 .
$10 \frac{1}{12}-4 \frac{1}{36}$

Because 12 is a factor of 36, the least common denominator is 36 .

- Convert the first fraction to an equivalent fraction with a denominator of 36: multiply its numerator and denominator by $36 / 12=3$ (note: $12 * 3=36$ ):
$10 \frac{1 * 3}{12 * 3}-4 \frac{1}{36}=10 \frac{3}{36}-4 \frac{1}{36}$



Next, group the whole number terms and put both fractions together over the common denominator:
$10 \frac{3}{36}-4 \frac{1}{36}=(10-4) \frac{3-1}{36}$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:
$(10-4) 3-1=6 \quad 2$

| 36 |  | 36 |
| :--- | :---: | :---: |
| $=$ | $1 / 18$ |  |

Enter 6 1/18
188) Problem \#PRAJEAX "PRAJEAX - 224053 - Subtracting Mixed Numbers"

Find the difference:

$$
\begin{array}{rr}
1 & 1 \\
10- \\
3 & -4 \frac{1}{6}
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

## Exact Match (case sensitive):

•61/6

## Hints:

- Notice 3 is a factor of 6 .

$$
\begin{array}{rr}
1 & 1 \\
10- \\
3 & - \\
6
\end{array}
$$

Because 3 is a factor of 6, the least common denominator is 6 .

- Convert the first fraction to an equivalent fraction with a denominator of 6: multiply its numerator and denominator by $\mathbf{6 / 3 = 2}$ (note: $3 * 2=6$ ):

$$
10 \frac{1 * 2}{3 * 2}-4 \frac{1}{6}=10 \frac{2}{6}-4 \frac{1}{6}
$$

Since the second numerator is not greater than the first, we do not have to borrow.


Next, group the whole number terms and put both fractions together over the common denominator:

$$
10-\frac{2}{6}-4 \frac{1}{6}=(10-4) \frac{2-1}{6}
$$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:
$(10-4) \frac{2-1}{6}=6 \frac{1}{6}$

Enter 6 1/6

## 189) Problem \#PRAJDJV "PRAJDJV - Adding Mixed Numbers"

Find the sum:

$$
4 \stackrel{1}{-}+\begin{array}{r}
7 \\
2
\end{array}+\begin{array}{r}
8
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
, $133 / 8$

## Hints:

- Notice 2 is a factor of 8 .

$$
\begin{array}{r}
1 \\
4- \\
2
\end{array} \quad \begin{array}{r}
7 \\
2
\end{array}
$$

Because 2 is a factor of $\mathbf{8}$, the least common denominator is $\mathbf{8}$.

- Convert the first fraction to an equivalent fraction with a denominator of 8: multiply its numerator and denominator by $8 / 2=4$ (note: $2 * 4=8$ ):

$$
4^{1^{*} 4}+8^{-7}=4^{-}+8-7_{-}^{-}
$$




Then, group the whole number terms and put both fractions together over the common denominator:
$4 \frac{4}{8}+8 \underset{8}{8}=(4+8) \frac{4+7}{8}$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlc}
(4+8) \frac{4+7}{8} & =12 \frac{11}{\mathbf{8}} \\
& =12+1 & 3 / 8 \\
& =13 & 3 / 8
\end{array}
$$

Enter 13 3/8
190) Problem \#PRAJDMW "PRAJDMW - Adding Mixed Numbers"

Find the sum:

| 1 |
| :---: |
| 4 |
| 4 |$+8 \frac{11}{-}$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
ป $151 / 6$

## Hints:

- Notice 4 is a factor of $\mathbf{1 2}$.
$6 \frac{1}{4}+8 \frac{11}{12}$

Because 4 is a factor of 12, the least common denominator is $\mathbf{1 2}$.

- Convert the first fraction to an equivalent fraction with a denominator of 12 : multiply its numerator and denominator by $12 / 4=3$ (note: $4 * 3=12$ ):
$6 \frac{1 * 3}{4 * 3}+8 \frac{11}{12}=6 \frac{3}{12}+8 \frac{11}{12}$

Then, group the whole number terms and put both fractions together over the common denominator:


```
            6\frac{-}{12}+8\frac{-}{12}=(6+8)
```

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlrl}
(6+8) \frac{3+11}{12} & =14 & \frac{14}{12} \\
& =14+1 & 2 / 12 \\
& =15 & 1 / 6
\end{array}
$$

Enter 15 1/6

Find the sum:

| 72 |
| :---: |
| - - |
|  |

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

, $107 / 72$
Hints:

## PSABKKK 1.1


-
The denominators $\mathbf{8}$ and $\mathbf{9}$ have no common factors greater than 1 .

$$
\begin{array}{r}
7 \\
2- \\
8
\end{array} \frac{2}{9}
$$

Because the denominators have no common factors, find the least common denominator by


$$
8 * 9=72
$$

Find equivalent fractions using the denominator 72.

## PSABKKK 1.2



Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$2 \frac{7 * 9}{8 * 9}+7 \frac{2 * 8}{9 * 8}=2 \frac{63}{72}+7 \frac{16}{72}$

Next, group the numerator and whole numbers:

$$
2 \frac{63}{72}+7 \frac{16}{72}=(2+7) \frac{63+16}{72}
$$

Now, sum the numerator and whole numbers.


Summing the numerator and the whole numbers gives:

$$
(2+7) 63+16=979
$$

| 72 |  | 72 |
| ---: | ---: | :---: |
|  | $=9+1$ | $7 / 72$ |
|  | $=10$ | $7 / 72$ |

Enter 107172
192) Problem \#PRAJDNP "PRAJDNP - Adding Mixed Numbers"

Find the sum:
7
$3-8$
9

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

, $1213 / 63$

## Hints:

- The denominators 9 and 7 have no common factors greater than 1 .

$$
\begin{array}{r}
7 \\
3- \\
9 \\
9
\end{array}
$$

Because the denominators have no common factors, find the least common denominator by multiplying 9 by 7 :

$$
9 * 7=63
$$

Find equivalent fractions using the denominator 63.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$3 \frac{7 * 7}{9 * 7}+8 \frac{3 * 9}{7 * 9}=3 \frac{49}{63}+8 \frac{27}{63}$

Next, group the numerator and whole numbers:

$$
3 \frac{49}{63}+8 \frac{27}{63}=(3+8) \frac{49+27}{63}
$$

Now, sum the numerator and whole numbers.

- Summing the numerator and the whole numbers gives:


Enter 12 13/63

## 193) Problem \#PRAJDMA "PRAJDMA - Adding Mixed Numbers"

Find the sum:
$6 \frac{5}{8}+10 \frac{11}{24}$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
, $171 / 12$

## Hints:

- Notice 8 is a factor of 24 .
$6 \frac{5}{8}+10 \frac{11}{24}$

Because 8 is a factor of 24, the least common denominator is 24 .

- Convert the first fraction to an equivalent fraction with a denominator of 24: multiply its numerator and denominator by $24 / 8=3$ (note: $8 * 3=24$ ):

$$
6 \frac{5^{* 3}}{8 * 3}+10 \frac{11}{24}=6 \frac{15}{24}+10 \frac{11}{24}
$$



Then, group the whole number terms and put both fractions together over the common denominator:
$6 \frac{15}{24}+10 \frac{11}{24}=(6+10) \frac{15+11}{24}$

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlrc}
(6+10) \frac{15+11}{24} & =16 & \frac{26}{24} \\
& =16+1 & 2 / 24 \\
& =17 & 1 / 12
\end{array}
$$

194) Problem \#PRAJDJ3 "PRAJDJ3 - Adding Mixed Numbers"

Find the sum:
$2 \underset{6}{\frac{1}{6}}+4 \frac{1}{18}$

Answers must be in the form of a reduced proper fraction (example $2 / 7$ ) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )
Exact Match (case sensitive):
ง $62 / 9$

## Hints:

- Notice $\mathbf{6}$ is a factor of 18.
$2 \frac{1}{6}+4 \frac{1}{18}$

Because 6 is a factor of 18, the least common denominator is 18 .

- Convert the first fraction to an equivalent fraction with a denominator of $\mathbf{1 8}$ : multiply its numerator and denominator by $18 / 6=3$ (note: $6 * 3=18$ ):
$2 \frac{1 * 3}{6 * 3}+4 \frac{1}{18}=2 \frac{3}{18}+4 \frac{1}{18}$

Then, group the whole number terms and put both fractions together over the common denominator:

```
https://www.assistments.org/build/print/sequence/809734?mode=debug&op_scaf=false&op_hint=false&op_answer_op=false&op_answer=false&op_name=false&op_buggies=false&op_sections=false&short_answers=false
            2- + 4- = (2+4)
                        18 18
```

Now, sum the numerator and the whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rll}
(2+4) \frac{3+1}{18} & =6 & \frac{4}{18} \\
& =6 & 4 / 18 \\
& =6 & 2 / 9
\end{array}
$$

Enter 6 2/9

## 195) Problem \#PRAJDQD "PRAJDQD - Adding Mixed Numbers"

Find the sum:

| $8_{2}$ | $+8_{3}$ |
| :---: | :---: |
| - | - |
| 3 |  |

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example $35 / 8$ )

## Exact Match (case sensitive):

, $175 / 12$

## Hints:

- The denominators 3 and $\mathbf{4}$ have no common factors greater than 1 .

$$
8 \frac{2}{3}+8 \frac{3}{4}
$$

Because the denominators have no common factors, find the least common denominator by multiplying 3 by 4 :

$$
3 * 4=12
$$

Find equivalent fractions using the denominator 12.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:

$$
8 \frac{2 * 4}{3 * 4}+8 \frac{3^{* 3}}{4 * 3}=8 \frac{8}{12}+8 \frac{9}{12}
$$

Next, group the numerator and whole numbers:


Now, sum the numerator and whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlr}
(8+8) \frac{8+9}{12} & =16 \frac{17}{12} \\
& =16+1 & 5 / 12 \\
& =17 & 5 / 12
\end{array}
$$

Enter 17 5/12

$$
\begin{array}{rr}
1 \\
8- \\
2 & 2 \\
2 & 2 \\
3
\end{array}
$$

Answers must be in the form of a reduced proper fraction (example 2/7) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

## Exact Match (case sensitive):

」 $65 / 6$

## Hints:

- The denominators 2 and 3 have no common factors greater than 1 .

| 1 | 2 |
| ---: | ---: |
| 2 | - |
| 2 | - |
| 3 |  |

Because the denominators have no common factors, find the least common denominator by multiplying 2 by 3 :

$$
2 * 3=6
$$

Find equivalent fractions using the denominator 6.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$8 \frac{1 * 3}{2 * 3}-1 \frac{2 * 2}{3 * 2}=8 \frac{3}{6}-1 \frac{4}{6}$

Since the second numerator is greater than the first, we have to borrow. Borrow 1 from the first whole number, 8 , and represent it in fractional form using the common denominator: $8=7+1=$ 7+6/6


Next, group the numerator and whole numbers:
${ }_{7}{ }_{6}^{9}-1 \frac{4}{-}=(7-1) \frac{9-4}{6}$

Now, find the difference in the numerator and in the whole numbers.

- Subtracting gives:
$(7-1) 9-4=65$


## 197) Problem \#PRAJDMV "PRAJDMV - Adding Mixed Numbers"

Find the sum:

$$
2 \frac{7}{10}+6 \frac{8}{11}
$$

Answers must be in the form of a reduced proper fraction (example $2 / 7$ ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

## Exact Match (case sensitive):

$\sqrt{947 / 110}$

## Hints:

- The denominators 10 and $\mathbf{1 1}$ have no common factors greater than 1 .

$$
2 \frac{7}{10}+6 \frac{8}{11}
$$

Because the denominators have no common factors, find the least common denominator by multiplying 10 by 11:

$$
10 * 11=110
$$

Find equivalent fractions using the denominator 110.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:

$$
2 \frac{7 * 11}{10 * 11}+6 \frac{8 * 10}{11 * 10}=2 \frac{77}{110}+6 \frac{80}{110}
$$

Next, group the numerator and whole numbers:

$$
2 \frac{77}{110}+6 \frac{80}{110}=(2+6) \frac{77+80}{110}
$$

Now, sum the numerator and whole numbers.

- Summing the numerator and the whole numbers gives:

$$
(2+6) 77+80=8157
$$

$$
=8+1 \quad 47 / 110
$$

$$
=947 / 110
$$

Enter 9 47/110

## 198) Problem \#PRAJDN5 "PRAJDN5 - Adding Mixed Numbers"

Find the sum:

$$
4 \frac{11}{12}+3 \frac{6}{11}
$$

Answers must be in the form of a reduced proper fraction (example $2 / 7$ ) or a mixed number with a space between the whole number and the fraction (example 3 5/8)

## Exact Match (case sensitive):

ת $81 / 132$

## Hints:

- The denominators $\mathbf{1 2}$ and $\mathbf{1 1}$ have no common factors greater than 1 .
$4 \frac{11}{12}+3 \frac{6}{11}$

Because the denominators have no common factors, find the least common denominator by multiplying 12 by 11 :

$$
12 * 11=132
$$

Find equivalent fractions using the denominator 132.

- Since, in this case, the least common denominator is the product of the two denominators, find equivalent fractions by multiplying each fraction's numerator and denominator by the other fraction's denominator:
$4 \frac{11 * 11}{12 * 11}+3 \frac{6 * 12}{11^{*} 12}=4 \frac{121}{132}+3 \frac{72}{132}$

Next, group the numerator and whole numbers:

$$
4 \frac{121}{132}+3 \frac{72}{132}=(4+3) \frac{121+72}{132}
$$

Now, sum the numerator and whole numbers.

- Summing the numerator and the whole numbers gives:

$$
\begin{array}{rlc}
(4+3) \frac{121+72}{} & =7 & \frac{193}{132} \\
& =7+1 & 61 / 132 \\
& =8 & 61 / 132
\end{array}
$$

Enter 8 61/132

