

Name: _____ Per: _____ Date: _____

Geometry (H) Exam #3

1. Matching: Match each slope to its corresponding type of line (8 pts)

- | | |
|-----------------------|-----------------------------|
| _____ Positive Slope | a. Horizontal Line |
| _____ Negative Slope | b. Falls from left to right |
| _____ Zero Slope | c. Rises from left to right |
| _____ Undefined Slope | d. Vertical Line |

2. Write the equation of the line. (20 pts)

a. That is perpendicular to the line $2x - 3y = 12$ that goes through the point $(-6, -2)$

b. That is parallel to the line $2x - 3y = 12$ that goes through the point $(-6, -2)$

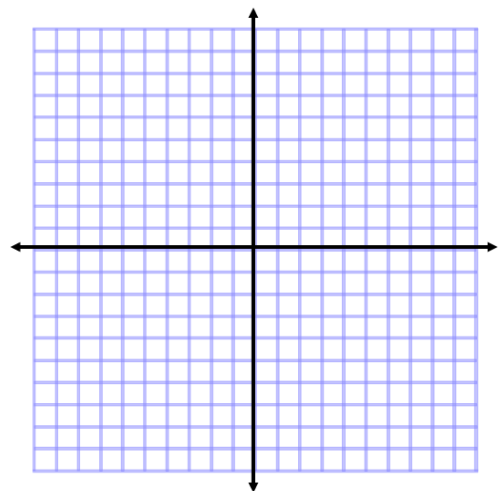
3. Tell whether the lines through the given points are parallel, perpendicular, or neither (10 pts)

a. Line 1: $(-5, 6), (-2, 2)$
Line 2: $(4, 5), (8, 2)$

b. Line 1: $(-5, 6), (-5, 2)$
Line 2: $(4, 6), (7, 6)$

4. Find the following information for the equation $5x + 2y = 8$. (12 pts)

- Slope intercept form
- Standard Form
- X and Y intercepts
- Graph



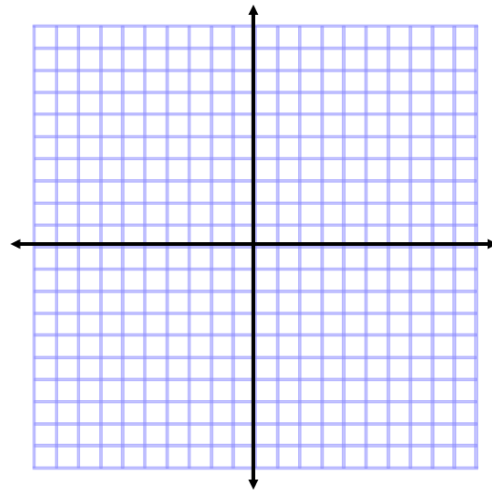
5. Solve the equation $Ax + By = C$ for y and then find the slope and y -intercept in terms of A , B , and C . (10pts)

6. Find Q so that the line through points $(3, 8)$ and $(-4, 6)$ is perpendicular to the line through the points $(0, -1)$ and $(6, Q)$ (10 pts)

7. You have two options for renting movies: You can either go to Blockbuster and rent a movie for a price of \$2.25 a movie, or sign up for Netflix and pay a flat fee of \$10 for unlimited movies. Make sure you label each part of the problem and explain yourself thoroughly. (30 pts)

a. Write an equation to model the cost of renting movies through Netflix and another for renting movies at Blockbuster.

b. Graph and label both equations you wrote in part a.



c. How many movies do you need to rent in order for Netflix to be cheaper? Explain your answer.