**Lesson Plan Title: Online Lesson #1**

**Teacher’s Name: Laura Cintrón Garcia Subject/Course: Algebra 2**

**Unit: Quadratic Functions Grade Level: 11 and 12**

**Overview of and Motivation for Lesson:**

**Complex Fractions**

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| **Stage 1-Desired Results** | | |
| **Standard(s):**  7- NS  2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide integers and other rational numbers.  a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as (–1)(–1) = 1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts. Massachusetts Curriculum Framework for Mathematics 64  b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then –( p ∕q) = (–p) ∕q = p ∕(–q). Interpret quotients of rational numbers by describing real-world contexts.  c. Apply properties of operations as strategies to multiply and divide rational numbers.  d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.  3. Solve real-world and mathematical problems involving the four operations with integers and other rational numbers.24 | | |
| **Aim/Essential Question:**  How can I simplify complex fractions? | | |
| **Understanding(s):**  *Students will understand that . . .*   * How to find the LCD of all fractions within the complex fraction. * They must multiply every term in the complex fractions. * They must fully simplify the expression. | | |
| **Content Objectives:**  *Students will be able to . . .*   * Find the LCD between all fractions within the complex fraction. * Multiply every term in the complex fraction and simplify. | | **Language Objectives:**  ELD Level 2 *Students will be able to . . .*  *Explain how to Find the LCD in English*  ELD Level 4 *Students will be able to . . . in English*  Explain how to find an LCD and simplify the rational expression. |
| **Key Vocabulary**   * Denominator * Least Common Denominator * Simplify * Fraction * Complex Fraction | | |
| **Stage 2-Assessment Evidence** | | |
| **Performance Task or Key Evidence**   * Taking notes on the online lecture * Completion of both assignments by the end of the week. | | |
| **Key Criteria to measure Performance Task or Key Evidence** | | |
| **Stage 3- Learning Plan** | | |
| **Learning Activities:**  Learning Activity 1:  Watch the Online Video Lecture and take notes on the notes packet.  Learning Activity 2:  Complete the worksheet on Complex Fractions  Learning Activity 3:  Compete the DeltaMath assignment on Complex Fractions  Application  **Arithmetic with Rational Expressions**  Summary/Closing  **They can email me about any doubts they have and/ or attend my Zoom office hours.**  **Multiple Intelligences Addressed:**   |  |  |  |  | | --- | --- | --- | --- | | Linguistic | Logical-Mathematical | Musical | Bodily-kinesthetic | | Spatial | Interpersonal | Intrapersonal | Naturalistic |   **Student Grouping**  Whole Class  Small Group  Pairs  Individual  **Instructional Delivery Methods**  Teacher Modeling/Demonstration  Lecture  Discussion  Cooperative Learning  Centers  Problem Solving  Independent Projects | | |
| **Accommodations**   * All deadlines are flexible. | **Modifications**  Shorter practice packet and more formulas given. | |
| **Homework/Extension Activities:**  2 Problems to complete before the Zoom Lecture. | | |
| **Materials and Equipment Needed:**   * Computers/ phones/ chromebooks. * Wifi/ Internet * A printer/ a way to edit a document. | | |

**Adapted from Grant Wiggins and Jay McTighe-*Understanding by Design***