

Grade 8

Distance Learning Module 9: Week of: 6/1/2020-6/5/2020

**Grade 8 Algebra - Modified from [Unit F - Beyond Straight Lines](#)**

**Targeted Goals from Stage 1: Desired Results**

**Content Knowledge:** Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret  $P(1+r)^n$  as the product of  $P$  and a factor not depending on  $P$ . Write expressions in equivalent forms to solve problems. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.

**Vocabulary:**

- **Least Common Denominator (LCD)** - Least common multiple of the denominators
- **Fraction Bust** - Technique to eliminate the denominator in the equation by multiplying every piece of the equation by the LCD
- **Factoring** - Sometimes you need to factor in order to find the LCD
- **Restrictions** - When solving a rational equation you need to look at your answers and make sure each individual answer won't cause you to divide by 0 when substituted back into the original equation. If this happens this answer needs to be discarded and not counted as a solution.

**Skills:** Fraction Bust and Factoring

**Expectation:**

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or Khan Academy)
Monday: Introduction to rational equations <ul style="list-style-type: none"><li>● Watch two youtube videos on fraction busting and identifying restrictions</li><li>● Watch a Khan Academy Video on how to solve rational expressions</li><li>● Practice Fraction Busting</li></ul>	Instruction: Identifying Restrictions(youtube)  Fraction Busting (youtube)  Rational Equations Intro(Khan)  Fraction Busting Practice (with answers) Scroll past examples to Problems and do numbers 1,4,6,8,20	

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or Khan Academy)
<p>Tuesday: Solving Rational Equations</p> <ul style="list-style-type: none"> <li>● Watch two Khan Academy Video on how to solve rational expressions</li> <li>● Practice solving rational expressions</li> </ul>	<p>Instruction:</p> <p>Equations with Rational Expressions (Khan)</p> <p>Practice:</p> <p>Mathaids Practice Sheet with answers</p> <p><b>* Odd problems only</b></p>	
<p>Wednesday: Solving Rational Equations</p> <ul style="list-style-type: none"> <li>● Watch two Khan Academy Videos on how to solve rational expressions</li> <li>● Practice solving rational expressions</li> </ul>	<p>Instruction:</p> <p>Equations with Rational Expressions (Example 2) (Khan)</p> <p>Practice:</p> <p>Mathaids Practice Sheet with answers</p> <p><b>* Even problems only</b></p>	<p><b>* DO NOT use these links to Khan Academy. Log into your Khan account and complete these assignments through your individual teacher's Khan class. Teachers will assign these in their Khan classes.</b></p> <p>Practice Rational Equations Intro (Khan)</p>
<p>Thursday: Solving Rational Equations</p> <ul style="list-style-type: none"> <li>● Watch videos on how to solve rational expressions</li> <li>● Practice solving rational expressions</li> </ul>	<p>Instruction:</p> <p>Solving Rational Equation video (youtube)</p> <p>Solving Rational Equation video 2 (youtube)</p>	<p><b>* DO NOT use these links to Khan Academy. Log into your Khan account and complete these assignments through your individual teacher's Khan class. Teachers will assign these in their Khan classes.</b></p> <p>Practice Rational Equations (Khan)</p>
<p>Friday: Solving Rational Equations</p> <ul style="list-style-type: none"> <li>● Practice solving rational expressions</li> </ul>	<p>Practice:</p> <p>Solving Rational Equations worksheet with answers odds only</p>	<p><b>* Do in your individual teacher's google classroom only</b></p> <p>Google Form Check-in</p>

**Week criteria for success** (attach student checklists or rubrics):

- I can eliminate the denominator in a rational equation.
- I can identify the restrictions in a rational equation.
- I can solve a rational equation.

**Supportive resources and tutorials for the week** (plans for re-teaching):

Unit F Smartboard Notes