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| **Unit 5 Rational 1** | | |
| **Concepts**   * Day 1- Multiply/Divide Rational expressions (complex fractions, use factoring) * Day 2- Add, subtract rational expressions (common denominator) * Day 3- Solving rational functions, extraneous solutions (domain restrictions) * Day 4- Inverses of rational functions | **Core**  A.ARP.7  A.REI.2  F.BF.4  Prerequisite skills – Factoring, reducing, adding and subtracting fractions with unlike denominators  Objectives:  I can multiply and divide rational expression and simplify using factoring.  I can simplify a rational expression.  I can add and subtract rational expressions.  I can solve rational equations, checking for extraneous solutions.  I can write the expression for the inverse of a rational equation. | **Resources**  9-2 Day 1 – Introduce excluded values (includes “closure” discussions)  9-1 Day 2  9-3 adjust #1&2 in homework (clarify instructions) Day 4 – supplement (5-2?) |
| **Unit 6 Rational 2** | | |
| **Concepts**   * inequalities– sign charts * -graphing * -asymptotes, analyzing * -domain and range * end behavior (limits) * -transformations * -discontinuities (holes)   **Vocab**   * Domain, range, limit, asymptote, increasing, decreasing, hole, discontinuity, analyze, end behavior, sign chart, transformation | **Core**   * A.REI.11 * F.IF.7 * F.BF.3   Day 1: Domain, range, End behavior (limits) to introduce asymptotes, increasing, decreasing  Day 2: Asymptotes algebraically, discontinuities, transformations  Day 3: Graphing and analyzing  Day 4: Inequalities (sign charts)  **Objectives**  Day 1: I can evaluate the domain and range of a rational function  I can describe the end behavior and write it using limit notation  I can explain the connection between end behavior and asymptotes  I can describe and denote where a rational function is increasing and decreasing  Day 2: I can find the asymptotes and discontinuities by inspection ha ha ;)  I can manipulate an equation to describe the transformations of a graph  Day 3: I can graph and analyze a rational graph  Day 4: I can find the intercepts of a rational function  I can identify solution intervals for inequalities using a sign chart | **Resources**  Chapter 8 |