

<b>Planned Course: Algebra II</b>		<b>Course Number: M305</b>	<b>Department: Mathematics</b>
<b>Unit: Rational Expressions</b>		<b>Grade Level: 8-12</b>	
<b>Estimated Time: 18 days</b>		<b>Level/Track:</b>	<b>Date Approved: 7/15/08</b>
<b>PA Academic Standards</b>	<b>Core Concepts (in question format)</b> • Skills/Knowledge	<b>Activities/Strategies/Study Skills</b> (identify some activities as remedial or enrichment activities)	<b>Assessments</b> (include types and topics)

<p><b>ASSESSMENT ANCHOR</b></p> <p><b>M11.D.2</b> Represent and/or analyze mathematical situations using numbers, symbols, words, tables and/or graphs.</p> <p><b>M11.D.2.2</b> Simplify expressions involving polynomials.</p> <p><b>M11.D.2.2.3</b> Simplify algebraic fractions.</p> <p><b>M11.D.2.2.1</b> Add, subtract and/or multiply polynomial expressions (express answers in simplest form – nothing larger than a binomial multiplied by a trinomial).</p> <p><b>M11.D.2.2.2</b> Factor algebraic expressions, including difference of squares and trinomials (trinomials limited to the form <math>ax^2+bx+c</math> where a is not equal to 0).</p> <p><b>M11.D.2.2.3</b> Simplify algebraic fractions.</p>	<p>▶ What are rational expressions?</p> <ul style="list-style-type: none"> <li>• Students will be able to multiply and divide rational expressions.</li> <li>• Students will be able to solve equations that contain rational expressions.</li> <li>• Students will be able to add and subtract rational expressions.</li> </ul>	<ol style="list-style-type: none"> <li>1. Students will factor all numerators and denominators.</li> <li>2. Students will cancel identical factors in a one-for-one numerator/denominator procedure.</li> <li>3. Students will change all divisions to products by inversion of divisor.</li> <li>4. Students will multiply simplified fractions for final answer.</li> <li>5. Students will factor denominator to find LCD.</li> <li>6. Students will convert all fractions to those with LCD and add fractions for final answer.</li> </ol>	<ul style="list-style-type: none"> <li>• Graded Homework</li> <li>• Classroom Observation</li> <li>• Online Quiz/Test</li> <li>• In Class Quiz/Test</li> <li>• Participation</li> <li>• Graded Class work</li> <li>• Projects</li> </ul>
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