

<b>Planned Course:</b> Algebra II	<b>Course Number:</b> M305	<b>Department:</b> Mathematics	
<b>Unit:</b> Polynomial Functions	<b>Grade Level:</b> 8-12		
<b>Estimated Time:</b> 24 days	<b>Level/Track:</b>	<b>Date Approved:</b> 7/15/08	
PA Academic Standards	Core Concepts (in question format) <ul style="list-style-type: none"> <li>Skills/Knowledge</li> </ul>	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)

ASSESSMENT ANCHORS	Core Concepts (in question format) <ul style="list-style-type: none"> <li>Skills/Knowledge</li> </ul>	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)
<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.2.2.1</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 <math>a</math> is not equal to 0).</p> <p><b>M11.D.2.2.3</b> Simplify algebraic fractions.</p>	<ul style="list-style-type: none"> <li>Students will be able to add, subtract, and multiply polynomials.</li> <li>Students will be able to use polynomial operations to solve real life problems.</li> <li>Students will be able to factor polynomial expressions and equations.</li> </ul>	<ol style="list-style-type: none"> <li>Students will combine like terms to add and subtract polynomials using vertical and horizontal methods.</li> <li>Students will find greatest common factor (GCF).</li> <li>Students will factor difference of two squares.</li> <li>Students will factor basic (<math>a = 1</math>) trinomials.</li> <li>Students will factor harder (<math>a \neq 1</math>) trinomials.</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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<b>PA Academic Standards</b>	<b>Core Concepts (in question format)</b> • <b>Skills/Knowledge</b>	<b>Activities/Strategies/Study Skills</b> <b>(identify some activities as remedial or enrichment activities)</b>	<b>Assessments</b> <b>(include types and topics)</b>

<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.2.2.1</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>	<ul style="list-style-type: none"> <li>• Students will factor sum and difference of two cubes.</li> <li>• Students will factor 4-term polynomials by grouping.</li> <li>• Students will solve linear, quadratic, and exponential equations by factoring.</li> </ul>	<ol style="list-style-type: none"> <li>5. Students will use factoring to solve quadratic equations.</li> <li>6. Students will define the domain of a rational function.</li> <li>7. Students will define range of a function.</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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