

<b>Planned Course: Honors Geometry</b>		<b>Course Number: M307H</b>		<b>Department: Mathematics</b>	
<b>Unit: Right Triangles &amp; Trigonometry</b>		<b>Grade Level: 9-12</b>		<b>Date Approved: 7/15/08</b>	
<b>Estimated Time: 16 days</b>		<b>Level/Track: Honors</b>			
<b>PA Academic Standards</b>	<b>Core Concepts (in question format)</b> • <b>Skills/Knowledge</b>	<b>Activities/Strategies/Study Skills</b> (identify some activities as remedial or enrichment activities)	<b>Assessments</b> (include types and topics)		

<p><b>ASSESSMENT ANCHORS</b> M11.C.1.4 Solve problems involving right triangles using the Pythagorean Theorem.</p> <p><b>ACADEMIC STANDARDS</b> 2.10.11 Trigonometry B. Identify, create and solve practical problems involving right triangles using the trigonometric functions and the Pythagorean Theorem.</p>	<p>▶ What is the relationship between the legs and hypotenuse of a right triangle and the special right triangles?</p> <ul style="list-style-type: none"> <li>• Student will be able to apply the Pythagorean Theorem and its converse</li> <li>• Student will be able to apply special ratios that occur in the 30-60-90 and 45-45-90 triangles.</li> </ul> <p>▶ What are the three basic trigonometric functions and how do they relate to a right triangle?</p> <ul style="list-style-type: none"> <li>• Student will be able to apply the tangent, cosine, and sine ratios to solve problems.</li> </ul>	<p>▶ The student will prove the Pythagorean Theorem.</p> <p>▶ The student will solve for a missing variable in the Pythagorean Theorem equation.</p> <p>▶ The student will derive the special ratios that emerge when working with the 30-60-90 and 45-45-90 triangles.</p> <p>▶ The student will analyze figures to determine missing side lengths using the Pythagorean Theorem and right triangle ratios.</p> <p>▶ The student will use angles of elevation and depression to solve problems.</p>	<p>▶ Graded assignments</p> <p>▶ Classroom observation and/or participation</p> <p>▶ Quiz</p> <p>▶ Test</p>		
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