

UNIT OF STUDY

Title: Unit 7	Subject/Course: Geometry	Length: 7 days
Topic: Ratios/Proportions/Pythagorean Theorem		Grade: 10th
Designer: Boyd		
UNIT GOALS AND EXPECTATIONS		
IMPORTANT CONCEPTS/UNDERSTANDINGS: <ul style="list-style-type: none"> • Use proportions to solve problems • Find geometric means • Solve problems using Pythagorean Theorem 	ESSENTIAL QUESTIONS: <ul style="list-style-type: none"> • What is a ratio? • What is a proportion? • What is a geometric mean? • What is the Pythagorean Theorem? 	
STUDENT LEARNING EXPECTATIONS: <ul style="list-style-type: none"> • M.3.G.4 Use (given similar geometric objects) proportional reasoning to solve practical problems (including scale drawings) • T.2.G.4 Apply the <i>Pythagorean Theorem</i> and its converse in solving practical problems 		
SPECIFIC DECLARATIVE KNOWLEDGE – What I know <ul style="list-style-type: none"> • Vocabulary: ratio, legs, hypotenuse, proportion, geometric mean, Pythagorean theorem, radical form, scale drawing, cross product, equivalent • Identify properties of similar figures 	SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do <ul style="list-style-type: none"> • Use number line to find indicated ratio • Write given ratio in simplest form • Solve proportions • Determine if figures are similar by setting up and solving proportions • Use proportions to solve real world problems • Find the geometric mean of two numbers • Use scale drawings to solve real world problems through proportional reasoning • Use Pythagorean theorem to solve word problems and write answers in decimal and radical form 	
UNIT ASSESSMENTS (Include tasks related to Dimensions 3 and 4 and Bloom’s Taxonomy)		
<ul style="list-style-type: none"> • Open Response Unit 7 question 1 proportions (election) • Open Response Unit 7 question 2 Pythagorean Theorem (horse trail) 		
Traditional Assessments: <ul style="list-style-type: none"> • Simplifying ratios with uncommon units and solving proportions Quiz • Unit 7 Test • TLI module test • Vocabulary Quiz 	Other Evidence of Learning: <ul style="list-style-type: none"> • Homework • Class work 	
ACTIVITIES AND LEARNING EXPERIENCES		Resources
<ul style="list-style-type: none"> • Introduce vocabulary using 4-step strategy 		<ul style="list-style-type: none"> • Mastery Math Notebook

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| <ul style="list-style-type: none">• Review units of time and distance by student questioning• Small group work to solve proportions and decide which information is needed• Model Pythagorean Theorem using pictures and word problems | |
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Career Connections	
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Carpenter, Aerial Photographer, Chef, Rock Climbing, Architecture	
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