

Grade: 8 Math 1Benchmark #: 8.1.4.A1 (Percents, Area,Perimeter)		Mastery Check 4
<p>State Language: 1.4.A.1 The student generates and/or solves one- and two-step real-world problems using computational procedures and mathematical concepts:</p> <ul style="list-style-type: none"> a. rational numbers b. the irrational number pi as an approximation c. applications of percents 	<p>Student Friendly Language: Solve one and two-step real world problems that include all kinds of percents, integers, and Pi.</p>	
<p>Concept (Students will know): * how to solve real-world problems with percent, area, circumference, and perimeter of triangles, rectangles, squares, and circles. *a) the rules for computation with the four operations of fractions & decimals. *How to convert fraction, decimals and percents. *Area & Perimeter formulas for Rectangles, squares, and triangles. * How to find a missing side when given the area of a rectangle and a side. *how to find a missing side or area of a rectangle when given the perimeter and a side. B) understand (Pi) * How to find area & circumference of circles. * How to find the radius or diameter when given the area or circumference of the circle. *How to determine the area of a semi-circle. C) Apply the percent proportion to problems involving a percent * Know the formula for finding interest. *Know how to find sales tax. *Know how to find discount and sale price. *Know how to find the percent of discount, given the regular price and sale price. *Understand that multiplying by a percent, (when not in the percent proportion)the decimal point is moved 2 places to the left.</p>	<p>Skills (Students will do): a)use all 4 operations for fractions and decimals in real-world situations. *Solve real-world problems including percent, area, perimeter, circumference. * Use equivalent representations with rational numbers. * Find the area and perimeter of rectangles, squares and triangles. *Find the missing side of a rectangle given the area and a side. *Find the area of a rectangle, given the perimeter and a side. b) Use Pi to find circumference and area of a circle. * Find the radius/diameter of a circle given the circumference. *Find the area of a semi-circle. c) Figure interest, discount, percent of discount and sales tax in a real-world problems. *Use the conversion values of percent, decimal and fractions effectively. * Apply the formula for interest. * use the percent proportion to solve real-world problems. *Multiply by a percent by moving the decimal point to the left 2 times. *Solve real world problems involving all four operations of integers.</p>	<p>DOK Level:</p>

*Know rules of all four operations of integers.		
<p>Big Ideas: The student should be able to solve real-world problems involving operations with fractions, decimals, and percents. They should also be able to solve real-world problems that involve area of circles and rectangles and perimeter and circumference of same. Apply the problem solving model to any real-world problem.</p>		
<p>Essential Questions: What are the four steps of the problem-solving model? What is the Area formula for a rectangle? What is the formula for area of a triangle? How can you find the perimeter for a rectangle? How can you use them in real world problems? What is the circumference formula? How can we use that formula in real world problems involving circles? What is the area formula for a circle? How is that formula important in real world problems involving circles? What is the percent proportion? Given the regular price of an item, how do you find the sales tax? How do you find discount and sales price of a regular priced item? Given the regular price and sale price, how do you find the percent of discount in a real-world problem?</p>		
<p>Core Material Text-Glencoe Pre-algebra book</p>	<p>Supplemental Materials: Study Island Technology Teacher generated materials Resource workbook for Glencoe</p>	
<p>Teaching Strategies: Notes Guided practice Scaffolding</p>		
<p>Mastery Check Items:</p>		