

Strand: Computation/Process		
Topic: 6.C.1/PS.1 - Divide Fluently		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Interpret a remainder in a long division problem.	1563 students are going to Rascal's on a field trip. If 82 students can ride on a school bus. How many buses are needed to transport all of the students to Rascals?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Fluently divide multi-digit whole numbers by 2- and 3-digit divisors using at least one of the following approaches: standard algorithmic, partial quotients showing ALL NECESSARY STEPS in the chosen process.	7,328/16 = Seven hundred thirty-five divided by twenty-one equals ? Write an explanation of the problem solving process.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Divisor, Dividend, Quotient, Remainder, Standard Algorithm	3942 divided by 3 = ? 1525 divided by 5 = ?
Score 2.0 Progressing	*Perform basic processes, such as:	
	Partial quotients, Area Model Division, Repeated Addition	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Geometry		
Topic: 6.GM.5 / 6.GM.6 Surface Area & Volume		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Students will be given the volume and 2 dimensions of a prism and will need to calculate the missing side.	495in = 11in x 9in x h Find the volume of a prism inside of a larger prism.
	Students will calculate the volume of a prism within another prism.	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate fraction length, and shows that the volume is the same as it would be found by multiplying the edge lengths of the prism. Applies the formula $V=lwh$ and $V=Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	How many cubic unit blocks would fit in a prism measuring 2 by $3\frac{1}{2}$ by 2? Does this match the volume formula?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: volume, right rectangular prism, fractional edge.	Matches vocabulary with the appropriate definitions. Find the volume of a prism with a base of $3\frac{1}{2}$, a width of 2, and a height of 2.
	*Perform basic processes, such as: find the volume of prisms given the formula and dimensions.	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation/Process		
Topic: 6.C.6/PS.1 - Order of Operations		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Perform an error analysis on a problem that has steps shown.	Place parentheses and/or operation symbols in an equation to make it true. Perform an error analysis on a provided problem.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Apply the order of operations to evaluate numerical expressions with nonnegative rational numbers, including those using grouping symbols, such as parentheses, and involving whole number exponents. Justify each step in the process and show work that demonstrates understanding.	$52 + (14 - 8) - 1 \times 9$ Provide a written explanation of the steps necessary to solve an order of operations problem to justify answer.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: exponent operations *Perform basic processes, such as: follow the order of operations to evaluate expressions	$5 + (3 \times 6) - 2 =$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation/Process		
Topic: 6.C.3a/PS.1 - Add & Subtract Decimals		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Perform multiple steps with varying lengths of decimals to solve a problem.	Bob has \$15.00 to spend on snacks. He bought 2 packages of gum that cost 99 cents per package. He bought 10 bags of chips for 75 cents each. He also bought a soda and a candy bar for a sum of \$2.13. How much change will he get back from the cashier?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Add and subtract with positive decimals fluently showing work that demonstrates understanding and provide a written explanation of the process used to arrive at the answer.	Sam has \$20. He wants to buy a pencil for \$0.75 and a book for \$6.95. How much change will he get back? Provide a written explanation of the process used to arrive at the answer.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: place value	3.1 + 1.43 1.2 – 0.35
	*Perform basic processes, such as: add and subtract to the hundredths place	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation/Process

Topic: 6.C.3b/PS.1 - Multiply & Divide Decimals

Level: 6

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Perform multiple steps with varying lengths of decimals to solve a problem.	Joe earned \$11.75 per hour. He worked 6 hours per day for 4 days. He puts 0.5 of his pay in a savings account. How much does he have left to spend each week?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Multiply and divide with positive decimals fluently showing work that demonstrates understanding. Provide a written explanation of the process used to arrive at an answer.	I bought 15 gallons of gas for 2.61 per gallon. What is the total cost of the gas? A restaurant sells chicken wings for \$8.00. Each wing sells for 40 cents. How many wings do you get? Write an explanation of the problem solving process.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: place value *Perform basic processes, such as: Student demonstrates one but not both of: multiply to the hundredths place divide to the hundredths place	3.12×1.43 $1.47 \div 0.35$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions		
Topic: 6.AF.1 Read, Evaluate Expressions		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Write, evaluate, and create an input/output table using a multi-step expression.	Suppose you plan to save \$22 a week. You've already saved \$15.50. In how many weeks will you have at least \$150 dollars saved?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Evaluates expressions at specific values of their variables, including expressions that arise from formulas used in real world problems. Create and apply an expression to an input/output table.	Create an input/output table using the expression $7x$. Evaluate the expression $3x + 5$ when $x = 7$. Use the order of operations to solve expressions. Write an explanation of the problem solving process.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Sum, term, factor, quotient, coefficient, evaluate, expressions, and formulas *Perform basic processes, such as: substituting a given number into an equation or inequality and evaluate for validity	Subtract y from 5. $5 - y$ The sum of 8 and a number y is 12 $8 + y = 12$ Understand that $2(8+7) = 2(8+7) + 2(7)$ Solve $A = lw$ Evaluate $3x + 7$ when $x=9$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation/Process		
Topic: 6.C.3c/PS.1 - Multiply & Divide Fractions		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Apply measurement formulas to identify a missing side in a polygon. fractions in real word measurement scenarios.	Use Using the formula $A = l \times w$, find the width of the rectangle if the area is 63 square units and the length is $3\frac{1}{2}$ square units. Divide a recipe in half.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Multiply/divide positive fractions/mixed numbers fluently showing work that demonstrates understanding.	How much chocolate will each person get if 7 people share $2\frac{1}{2}$ lbs of chocolate? Bob has lost $3\frac{1}{4}$ lbs for each of the past 9 weeks. How much weight has Bob lost in all? Write an explanation of the problem solving process.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Reciprocal, numerator, denominator, mixed numbers, improper fractions, simplify/reduce, cross reduce *Perform basic processes, such as: The student demonstrates one, but not both: divide basic fractions including mixed numbers multiply basic fractions including mixed numbers	Solve: $5\frac{1}{2} \div \frac{1}{4}$ Solve: $\frac{3}{4} \times 2\frac{1}{8}$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation/Process		
Topic: 6.C.3d/PS.1 - Add & Subtract Fractions		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Add and subtract multiple mixed numbers to solve a real-world problem.	Apply knowledge of borrowing and carrying in a real world problem. Calculate and find the missing side of an irregular shape and calculate the perimeter.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Add/subtract positive fractions/mixed numbers fluently showing work that demonstrates understanding. Provide a written explanation of the process used to arrive at an answer.	How much chocolate does Sally have if she buys 3 lbs on Monday, 2 1/2 lbs on Tuesday, and 1 lb on Wednesday? Bob weighed 98 lbs and has lost 3 1/4 lbs this week. How much does Bob weigh now? Write an explanation of the problem solving process.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Reciprocal, numerator, denominator, mixed numbers, improper fractions, simplify/reduce *Perform basic processes, such as: The student demonstrates one but not both: adds basic fractions including mixed numbers subtracts basic fractions including mixed numbers	Solve $5 \frac{1}{2} + \frac{1}{4}$ Solve $2 \frac{3}{4} - 1 \frac{1}{8}$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 6.AF.5 Equations

Level: 6

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Write and solve two-step equations.	The perimeter of a rectangle is 50 inches. The length is 15 inches. Write and solve an equation to define the width of the rectangle.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the independent variable.	Write an explanation of the problem solving process. Mr. Sanford needs to type a 600-word report for Science class. He knows he can type 25 words per minutes. How long will it take Mr. Sanford to type his report?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: variables , equations, graphs, tables, expression, functions *Perform basic processes, such as: Express one variable in terms of the other and find potential solutions sets (input/output table).	Match vocabulary with appropriate definitions Match a list of real world scenarios to a list of given equations Jack was twice the age of Bob. If Bob is 12, how old is Jack. If jack is 20, how old is Bob?
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions		
Topic:6.AF.8 Ordered Pairs		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks Given ordered pairs, graph a triangle and calculate the area.
	The student will: Apply measurement formulas to shapes graphed on a coordinate plane.	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks Label x-axis and y-axis and quadrants. Find the coordinates of the given points within a coordinate plane and able to graph given coordinates. Find the distance between two sets of ordered pairs. Calculate perimeter of a rectangle.
	Understand signs of rational numbers in ordered pairs as indicating locations in the quadrants of a coordinate plane. Apply area and perimeter formulas to rectangles or squares.	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks Matches vocabulary with the appropriate definitions
	*Recognize or recall specific vocabulary, such as: positive integers, negative integers, rational numbers, zero, opposites, coordinates (ordered pairs), axis, x-axis, y-axis, quadrants, number line *Perform basic processes, such as: label the x-axis, y-axis, quadrants 1-4 and find the coordinates of given points within a coordinate plane	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense		
Topic: 6.NS.9/6.NS.10 - Rates and Ratios		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Solve problems involving similar figures.	If the map scale is 1.5 cm : 20 km, what is the actual distance if the distance on the map is 7.5 cm?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve unit rate problems including those involving unit price and constant speed. Solve problems determining the greater rate, cheaper cost, etc. Solve proportions.	It took 7 hours to mow 41 lawns, at that rate, how many lawns could to be mowed in 35 hours? At what rate were lawns being mowed? You need to buy dog food. You can get a 30 pound bag for \$60.00 at the local pet store. At the grocery store you can buy 20 pounds for \$42.00. Which is the better buy? Provide a written explanation of a problem.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: ratio, unit rate, equivalent ratios, unit cost *Perform basic processes, such as: recognize and solve equivalent ratios	Matches vocabulary with the appropriate definitions Matches equivalent fractions Make equivalent fractions
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic:6.AF.9/10 Tables, Equations, and Graphs

Level: 6

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		Write and solve real world problems that require a two or more variable equation to solve and can be represented with potential solution sets and graphs.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.	Given a real world problem, students will generate and use an equation with a dependent and independent variable to determine potential solution sets and graph the results.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	
	*Recognize or recall specific vocabulary, such as: Variable(s), Dependent, Independent, equation, graph, table, expression, function	
	*Perform basic processes, such as: Express one variable in terms of the other and find potential solution sets	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense		
Topic: 6.NS.5 - Using Percent		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Use percents to solve real world problems. Find a percent of a quantity as a rate per 100.	You and three friends go to dinner at Buffalo Wild Wings. The total bill is 32.85. If tax is 8%, how much does each person need to contribute to the bill?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Fluently convert between fractions, decimals, and percents. Matching basic common fractions ($\frac{1}{3}$, $\frac{2}{5}$, $\frac{5}{8}$, 5) to the corresponding percent.	Convert 3.62 to a percent. Change $\frac{4}{25}$ to a decimal and to a percent.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: rate, percent, whole, part of a whole *Perform basic processes, such as: Matching basic common fractions ($\frac{1}{4}$, $\frac{1}{2}$, $\frac{1}{10}$) to the corresponding percent. Students can solve problems finding the whole	Students convert fractions, decimals or percents to another form, such as: $\frac{1}{2}$ is _____ % 0.25 is _____ as a fraction
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense		
Topic: 6.NS.3 - Rational Numbers		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Use integer computation to solve real world problems.	Emily's total score after 3 games was a -8. Her score in the first game was -15. What could her other 2 scores be? Explain. Find the average of a set of rational numbers.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Compare and order rational numbers and plot them on a number line. Write, interpret, and explain statements of order for rational numbers in real-world contexts.	The temperature this morning was -9° and now it is 7° . How much has the temperature risen? Explain your answer. Students can order rational numbers without a given number line. Provide a written response.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: rational number integer absolute value *Perform basic processes, such as: comparing rational numbers	Students can order rational numbers on a given number line.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0

Even with help, the student has no success.

Strand: Geometry		
Topic: 6.GM.4 Area of Irregular Shapes		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: be asked to find how many cans of paint will be needed given the area or the cost to paint the front of the garage be asked to find a missing value if given the area or find the missing value if given the area of a complex shape.	A can of paint covers 2.5 m ² . How many cans of paint will be needed? A can of paint costs \$24.50. How much will it cost to paint the front of the garage?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	find the area of complex shapes composed of polygons by composing and decomposing into simple shapes (parallelograms, triangles, and trapezoids).	The front of a garage measuring 3.5 meters and 2.5 meters needs to be painted with a roof measuring 3.5 meters and a height of 1.2 meters. The total area except for the door will be painted. The door is 1.5 m high and 2 m wide. How many square meters of paint will be needed?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific formulas, such as: $A = lw$; $A = bh$; $A = (bh)/2$; $A = 1/2(\text{base one} + \text{base two})h$ *Perform basic processes, such as: find the area of a parallelogram, triangle or a trapezoid	Find the area of a triangle with a base of 14 and a height of 22.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Geometry		
Topic: 6.GM.5 Volume		
Level: 6		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	Students will be given the volume and 2 dimensions of a prism and will need to calculate the missing side. Students will calculate the volume of a prism within another prism.	495in = 11in x 9in x h Find the volume of a prism inside of a larger prism.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate fraction length, and shows that the volume is the same as it would be found by multiplying the edge lengths of the prism. Applies the formula $V=lwh$ and $V=Bh$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.	How many cubic unit blocks would fit in a prism measuring 2 by 3 $\frac{1}{2}$ by 2? Does this match the volume formula?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: volume, right rectangular prism, fractional edge. *Perform basic processes, such as: find the volume of prisms given the formula and dimensions.	Matches vocabulary with the appropriate definitions. Find the volume of a prism with a base of 3 $\frac{1}{2}$, a width of 2, and a height of 2.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation		
Topic: 7.C1-C4 Computation with Integers		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	Understand special relations among integers	Answer with Always, Sometimes, or Never If K is any integer and n is less than 0, then nk is less than n.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Can solve story problems with real-world examples that involve computation of integers with all four operations.	Solve problems (example): The highest and lowest temperatures ever recorded in South America are 114° F and -25° F. What is the difference in these two extremes?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	Recognize specific vocabulary, such as integer and absolute value *Perform basic computation with integers. add, subtract, multiply, and divide integers using standard algorithm	$20 \times (-5)$ $(-7) \times 8$ $-860 \div (-4)$ $24 \div (-2) \times (-5)$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 7.AF.1/8.AF1 Expressions & the Distributive Property

Level: 7-8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*Factor completely. $6x^2y + 2xy - 14xy^2$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Apply the properties of operations to create equivalent linear expressions, including situations that involve factoring; can justify each step in the process.	*Simplify the following expression: $-35(x + 10 - 42x)$ *Factor completely: $8x - 10y$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	identify like terms. simplify expressions.	*Identify the like terms in the expression $4x + 14y - 18x$ *Simplify $105d + 15 - 70d$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 8.AF.1 Equations

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		A rectangular playground is 60 meters longer than it is wide. It is enclosed by 920 meters of fencing. Find its length.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve equations of the form $px + q = r$ and $p(x + q) = r$ fluently, where p, q, and r are specific rational numbers; represents real-world problems using equations of these forms and solves such problems	*Solve two step equations: $2(b - 3) = -24$ *The perimeter of a rectangle is 18 inches with a length of 5 inches. Write and solve an equation to find the width "w" of the rectangle.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	solve two-step equations.	$4x - 20 = 54$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 8AF.1/8.C.1 Equations with Rational Numbers - Decimals

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		Simplify the equation: $0.5(4-x)+6x=0.5x-9$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Solve linear equations with rational number coefficients fluently, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. Represent real-world problems using linear equations in one variable and solve such problems.	$5(x-4)=25$ $y+2(3y-1)=19$ $0.25(x+8)+3=10$ $0.5(m-6)+1.5m=9$ Amanda and Laurel went to the Vera Bradley Sale. Amanda bought 4 purses and also spent \$30 on a wallet. Laurel bought 6 purses. Together they spent a total of \$530. How much was each purse?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: Like Terms, Variable, Constant, Coefficient, and Solution. Perform basic processes, such as Solve two-step equations. Write and solve a two-step equation from a story problem. Simplify expressions using Distributive Property and Combining Like Terms.	$3x+5=-10$ $0.5x-3=6$ $2+0.4x=10$ Paul follows these two steps to prepare a roast. Step 1: Preheat the oven for 10 minutes. Step 2: Place roast in oven and cook for 20 minutes per pound. Last week, it took a total of 90 minutes for Paul to prepare the roast. Write an equation that can be used to determine the weight, in pounds, Paul prepared. $0.4(12x-36)$ $5a+2-6a+12$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0

Even with help, the student has no success.

Strand: Algebra and Functions		
Topic: 8.AF.1/8.C.1 Equations with Rational Numbers - Fractions		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		Simplify the equation: $12(4-x)+6x=12x-9$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve linear equations with rational number coefficients fluently, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. Represent real-world problems using linear equations and inequalities in one variable and solve such problems.	$5(x-4)=25$ $y+2(3y-1)=19$ $14(x+8)+3=10$ $1/2(m-6)+3/2m=9$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Like Terms, Variable, Constant, Coefficient, and Solution.	Fill in the blank with the following: Like Terms, Variable, Constant, Coefficient, and Solution. $3x+5=-10$ $12x-3=6$ $2+0.4x=10$
	*Perform basic processes, such as:	$7+3x>28$ $-3x+7\leq 28$ Paul follows these two steps to prepare a roast. Step 1: Preheat the oven for 10 minutes. Step 2: Place roast in oven and cook for 20 minutes per pound. Last week, it took a total of 90 minutes for Paul to prepare the roast. Write an equation that can be used to determine the weight, in pounds, Paul prepared.
	Solve two-step equations and inequalities. Write and solve a two-step equation from a story problem. Simplify expressions using Distributive Property and Combining Like Terms.	$13(12x-36)$ $5a+2-6a+12$

1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense

Topic: 8.NS.3/8.C.2 Exponents & Scientific Notation

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
	Simplify algebraic expressions and fractions	Simplify: $(-2hk)^4(4h^3k^5)^2$ $\frac{4}{5} = \frac{4}{5}$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Find the product or quotient of algebraic expressions Evaluate algebraic expressions for given values Multiply scientific notations and express your answers in scientific notation. Order numbers in scientific notation and standard form	Simplify: $(-2x^3)(7x^4)$ Evaluate a^{-3} if $a = 11$. $(5 \times 10^2)(1.5 \times 10^9)$ Order 2135, 2.02×10^3 , and 2.35×10^2 from least to greatest. $\frac{60}{10^3}$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: Product, Quotient, Scientific Notation, Exponent, Express, Standard Form *Perform basic processes, such as: Evaluate expressions Write the prime factorization of expressions using exponents for repeated factors Write each fraction in simplest form Express numbers in standard form and scientific notation	Simplify: $(-3)^3$ Find the prime factorization for $48ab^2$ Write in standard form: 3.067×10^{-4} Write in scientific notation: 123,000,000
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0

Even with help, the student has no success.

Strand: Algebra and Functions

Topic: 7.AF.3 Inequalities

Level: 7

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*Solve a compound inequality: $7 < b + 2 < 12$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve inequalities of the form $px + q = r$ ($>$ or \geq) r or $px + q$ ($<$ or \leq) r , where p , q , and r are specific rational numbers; represents real-world problems using inequalities of these forms and solve such problems; graphs the solution set of the inequality and interpret it in the context of the problem.	*Solve $3x + 1 > 22$, then label the number on a number line *Jim wants to purchase a new bike that cost \$149. He works to save money by mowing his neighbor's grass for \$15 a week. Jim has already saved \$31. Write an inequality that can be used to find the minimum number of weeks Jim must mow the grass.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *know what $<$, $>$, \leq , & \geq mean *Perform basic processes, such as: *graph and write an inequality *solve one step inequalities	*Solve: $4m > 84$ *Which symbol can you use for more than?
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation		
Topic: 7.C.6 Percent		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*The bicycle shop buys bicycle tires for \$25 each. The owner adds 120% markup to the cost of the tires. The owner changes the markup to 100% after complaints from customers. How much less will the owner make?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	apply the percent proportion to solve real world problems; solves problems involving percent, simple interest, tax, markups, markdowns, gratuities, commissions, fees, percent increase and decrease, error.	*Find 72% of 45 *A pair of shoes that cost \$95 is on sale for 15% off. What is the sale price?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*percent, simple interest, tax, markups, markdowns, gratuities, commissions, fees, percent increase and decrease, error	
	*Perform basic processes, such as: *determine if it is an increase or a decrease *convert fractions, decimals, and percents	*Convert 5% to a decimal *Write $\frac{3}{4}$ as a percent *Does tax increase or decrease the price?
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense		
Topic: 7.C.5/7.C.6 Using Ratios and Proportions to Solve Real-World Problems		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will:	Computes and compares unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Computes unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.	It takes Tom 20 minutes to walk $8\frac{1}{4}$ blocks to school. At this rate, how many blocks can he walk in one minute? A building 50 feet high casts an 80 foot shadow. Sarah casts a 6 foot shadow. The triangle formed by the building and its shadow is similar to the triangle made by Sarah and her shadow. How tall is Sarah?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: unit rate, ratio	AAA BB write the ratio of A's to B's in three ways
*Perform basic processes, such as: writing ratios three ways (3:2, 3 to 2, $3/2$)		
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions		
Topic: 7.AF.4/7.AF.5 Slope		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	understand and compares different equations representing the same proportional relationship	*Mr. Brock started at an elevation of 12,000 and hiked down to base camp ab 2400 feet. The graph shows his progress for the first 50 minutes of his hike. He reached the camp at 4:00 p.m. If he hiked at a constant rate, what time did he begin?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	graph a line given its slope and a point on the line; finds the slope of a line given its graph; identifies and describe situations with constant or varying rates of change; writes equations and draw graphs that describe a linear function in the form $y = mx$ where m is the slope of the line.	*Graph the line through the (2,3) with a slope of 5 *Find the slope of a line when given the graph *Given a graph, determine if the rate of change is constant (straight line) or variable (not a straight line) *Given a verbal scenario, complete the table, graph the relationship, identify the slope and write the equation in the form of $y = mx$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *slope, linear/ non-linear, vertical, horizontal, zero slope, undefined, constant rate of change, varying rate of change *Perform basic processes, such as: *identify/label x and y axes, quadrants, origin *identify and graph ordered pair	*Given a graph, be able to label all parts *Given a point from a graph, write an ordered pair *Given an ordered pair, graph it *Explain slope as vertical change (y) over horizontal change (x)
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 7.AF.6 /7.AF.7 Proportional Relationships in Algebra

Level: 7

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks					
	understand and compare different equations representing the same proportional relationship.	*Do both equations represent the same relationship? Explain. $y = 1/5 x$, $x = 5y$					
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.						
Score 3.0 Proficient	The student will:	Sample Tasks					
	write equations and draw graphs to represent proportional relationships and recognizes that these situations are described by a linear function in the form $y = mx$, where m is equal to the unit rate.	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td align="center">3</td><td align="center">12</td></tr> <tr><td align="center">4</td><td align="center">16</td></tr> <tr><td align="center">5</td><td align="center">20</td></tr> </table> <p>*Given the table, write an equation and draw a graph to represent proportional relationships.</p>	3	12	4	16	5
3	12						
4	16						
5	20						
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.						
Score 2.0 Progressing	The student will:	Sample Tasks					
	<p>*Recognize or recall specific vocabulary, such as:</p> <p>*constant of proportionality , proportional relationship</p> <p>*Perform basic processes, such as:</p> <p>*decide whether two quantities are in a proportional relationship</p> <p>*identifies the unit rate or constant of proportionality in tables, graphs, equations, and verbal descriptions of proportional relationships.</p>	<p>*Bill walked 6 miles in 2 hours. Linda walked 11 miles in 4 hours. Are these rates in proportion? What is the constant of proportionality?</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td align="center">10</td><td align="center">20</td><td align="center">30</td></tr> <tr><td align="center">1</td><td align="center">2</td><td align="center">3</td></tr> </table> <p>*$Y = 3x$ $Y = 3x + 5$</p>	10	20	30	1	2
10	20	30					
1	2	3					
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.						
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.						
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.						
Score 0.0	Even with help, the student has no success.						

Strand: Geometry		
Topic: 7.GM.5 Circumference and Area of Circles		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		The spray from a lawn sprinkler covers an area of 2,640.74 square feet. What is the radius of the circle covered by the lawn sprinkler? If Timmy is standing 30 feet away from the sprinkler, will he get wet? Why or why not?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Understand the formulas for area and circumference of a circle, use them to solve real-world problems; give an informal derivation of the relationship between circumference and area of a circle.	If a circle has a radius of 5 inches, find the diameter, circumference and area of the given circle. If the diameter of a wheel is 19 inches. How far will you move in one turn of the wheel? What is the distance covered in 10 turns of the wheel?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	circumference, area, vertex, radius, and diameter. Label parts of each shape	
	*Perform basic processes, such as:	
	Label, Identify all vocabulary terms on a given circle.	Draw, label, match names to parts of a circle like radius and diameter
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Geometry		
Topic: 7.GM.6-7/8.GM.2 - Surface Area of 3-D Figures		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		Find area of complex shape. If you were to slice it horizontally, what shape would you have? Given the surface area and radius, find the height of the object.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve real-world involving surface area of cylinders, three-dimensional objects composed of right rectangular prisms, spheres, cones, and pyramids. Construct nets for right rectangular prisms, cylinders, cones, and pyramids and use the nets to compute the surface area; apply this technique to solve real-world and other mathematical problems.	Compute the surface area of pyramids, spheres and cones. If a sphere has a diameter of 20 meters, what is the surface area of the sphere.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: area, net, label parts of each shape *Perform basic processes, such as: finding the surface area of right rectangular prisms with fractional or decimal dimensions.	If a right rectangular prism has a width of 4 mm, a height of 5.5 mm, and a length of $3\frac{1}{2}$ mm. What is the surface area?
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Geometry		
Topic: 7.GM.6-7/8.GM.2 - Volume of 3-D Figures		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		Find volume of complex shape. If you were to slice it horizontally, what shape would you have? Given volume find the missing measurements of the object.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve real-world involving volume of cylinders and three-dimensional objects composed of right rectangular prisms. Solve real-world involving volume of spheres, cones, and pyramids.	Provided an image of a 3D figure and included dimensions, if the prism is filled 35% full, how much space is occupied? Given a prism or pyramid, draw the net, label all sides, and find the volume. Given a cylinder or cone, draw the net, label all sides, and find the volume.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Volume, net, polyhedron - label parts of each shape *Perform basic processes, such as: Giving the number of faces, edges and vertices polyhedron have.	Draw, label, match names to parts Give the number of faces, edges and vertices each polyhedron have.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense

Topic: 8.NS.1 Irrational Numbers (Square Roots)

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks															
		$\sqrt[3]{27}$															
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.																
Score 3.0 Proficient	The student will:	Sample Tasks															
	<p>Give examples of rational and irrational numbers and explain the difference between them. Understand that every number has a decimal expansion; for rational numbers, show that the decimal expansion terminates or repeats, and convert a decimal expansion that repeats into a rational number.</p> <p>Use rational approximations of irrational numbers to compare the size of irrational numbers, plot them approximately on a number line, and estimate the value of expressions involving irrational numbers.</p> <p>Use square root symbols to represent solutions to equations of the form $x^2 = p$, where p is a positive rational number.</p> <p>Use square root symbols to represent solutions to equations of the form $x^2 = p$, where p is a positive rational number.</p> <p>Solve real-world problems with rational numbers by using multiple operations.</p>	<table border="1"> <thead> <tr> <th></th> <th>Rational</th> <th>Irrational</th> <th>Explanation</th> </tr> </thead> <tbody> <tr> <td>$\sqrt{37}$</td> <td></td> <td align="center"> </td> <td></td> </tr> <tr> <td>0.3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2π</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Write $0.\overline{43}$ as a fraction. • Order the following numbers on a number line. $-3, -\pi, \sqrt{30}, -\sqrt{25}, \frac{2}{3}, -1.75$ • Solve $x^2 = 36$ 		Rational	Irrational	Explanation	$\sqrt{37}$				0.3				2π		
	Rational	Irrational	Explanation														
$\sqrt{37}$																	
0.3																	
2π																	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.																
Score 2.0 Progressing	The student will:	Sample Tasks															
	<p>*Recognize or recall specific vocabulary, such as: Rational Number and Irrational Number.</p> <p>*Perform basic processes, such as: Add, subtract, multiplying, and dividing integers, fractions, and decimals. Square an integer.</p>	<p>Rational numbers are numbers that can be written as _____.</p> <p>Irrational numbers are numbers that _____ be written as fractions.</p> <p>$2.3+(-0.5)$ $-14\div 2$ 16×45 four to the second, third, fourth power Basic fraction computation with like and unlike denominators</p>															
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.																
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.																
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.																
Score 0.0	Even with help, the student has no success.																

Strand: Geometry		
Topic: 8.GM.8-9 Pythagorean Theorem		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		A triangle has sides with lengths of 8 miles, 15 miles and 17 miles. Use mathematical reasoning to determine if this is a right triangle.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and other mathematical problems in two dimensions. Apply the Pythagorean Theorem to find the distance between two points in a coordinate plane.	The base of a 12 foot ladder is 8 feet from the wall. How high can the ladder reach? Draw a picture, label each side, use to find the missing length Given a picture with sides labeled, find the missing side Given points (already plotted) find the distance between the two points Given points (they plot) find the distance between two points
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: right triangle, leg, hypotenuse, Pythagorean Theorem formula, square, square root *Perform basic processes, such as: square a number, take the square root of a number, solve one-step equations involving square roots	a. Solve 4^2 b. $\sqrt{16}$ c. $4 = c^2$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Operations with Integers					
Topic: 7.C.1, 7.C. 2, 7.C.3 7.C.4 Computation					
Level: 7					
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.			<u>Sample Tasks</u>	
	Solve problems involving positive and negative fractions and order of operations			-2 1/3 + (-5 5/8)	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.				
Score 3.0 Proficient	The student will:			<u>Sample Tasks</u>	
	Solve problems involving positive and negative decimals			Simplify $-4.5 + 2.14$, $-4(-8 + 7)$,	
	Solve problems involving integers and order of operations			Write and simplify an expression to represent this scenario:	
	Solve application problems involving integers			A plane starts at an elevation of 1100 ft. It rises 750 ft and	
				then drops 1200 ft. What is the plane's new elevation?	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.				
Score 2.0 Progressing	The student will:			<u>Sample Tasks</u>	
	*Recognize or recall specific vocabulary, such as:			Identify or match vocabulary	
	product, quotient, sum, difference, absolute value, additive inverses, order of operations			Simplify $-5 + 9$, $-9(-5)$, $-24/-8$, $-4 -(-6)$	
	*Perform basic processes, such as:			Find the absolute value of -8	
	Find the absolute value of a number Add, subtract, multiply, and divide integers without a calculator (one operation only); Plot integers on a number line				
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.				
Score 1.0 Beginning	The student will: add, subtract, multiply, and divide positive numbers and decimals using order of operations				
0.5	The student has partial success at Level 1.0 Content				
Score 0.0	The student has no success.				

Strand: Computation		
Topic: 7.C.5 & .7 Unit Rate		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	computes and compares unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.	*Which has the lowest unit rate: Peanuts \$6 for $\frac{1}{4}$ lb or Peanuts \$3.75 for 12oz
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units	*It takes Tom 20 minutes to walk $8\frac{1}{4}$ blocks to school. At this rate, how many blocks can he walk in one minute? *John walked 6 miles on the treadmill in 2 hours. How many miles per hour did John walk?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *unit rate, ratio	*AAA BB write the ratio of A's to B's in three ways
	*Perform basic processes, such as: *writing ratios three ways (3:2, 3 to 2, $\frac{3}{2}$)	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will simplify fractions and compare decimals	
0.5	The student has partial success at Level 1.	
Score 0.0	The student has no success.	

Strand: Number Sense		
Topic: 7.NS.1, 7.NS.2, 7.NS.3 Number Sense		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	perform prime factorization with variables; estimates square roots of non-perfect squares; orders, compares less common rational/irrational numbers.	*Prime factorization of $24a^2b$ *Estimate $\sqrt{21}$ the nearest tenths place *Order from greatest to least: $7/9, -\sqrt{36}, \sqrt{31}, -6.2$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	find the prime factorization of whole numbers and writes the results using exponents; understands the inverse relationship between squaring and finding the square root of a perfect square integer; identifies rational and irrational numbers; compares and orders rational and common irrational numbers ($\sqrt{2}, \sqrt{3}, \sqrt{5}, \square$) and plots them on a number line.	*Write 210 as a product of primes using exponents $\sqrt{25}$ *Identify as rational or irrational (2, $4/8, 0.7, \sqrt{5}, \square, 0.5$ repeating) *Order above numbers on a number line
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *rational, irrational, prime, factor, square, square root, composite, exponent *Perform basic processes, such as: *identify prime/composite numbers, evaluate an exponent, label number line, convert between forms of rational numbers	*Is the number prime or composite? (ex: 25, 7, 12) *Evaluate 7^3 *Draw/label a number line *Convert $\frac{2}{3}$ to a decimal; convert 0.2 to a fraction
1.5	The student has partial success at level 2.0 content, but major errors or omissions regarding level 3.0 content.	
Score 1.0 Beginning	The student will plot integers on a number line and multiply a number times itself.	
0.5	The student has partial success at Level 1.	
Score 0.0	The student has no success.	

Strand: One-Step Equations and Proportions			
Topic: 7. AF.6 , 7AF. 9 Algebra and Functions			
Level: 7			
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.		<p style="text-align: center;">Sample Tasks</p> <p>On a map the scale is 2 inches: 25 miles. Two cities are 5 inches apart on a map. What is the actual distance between the 2 cities?</p>
	Solve proportions involving map scales, similarity, or negative fractions		
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.		
Score 3.0 Proficient	The student will:		<p style="text-align: center;">Sample Tasks</p> <p>Solve the proportion: $x/3 = 5/8$; $-5.8x = -42.6$; The ratio of girls to boys in a class is 6:4, and there are 20 students. How many students are boys?</p>
	Solve one-step equations involving fractions and decimals		
	Solve proportions involving positive fractions and decimals		
	Solve application problems involving proportions		
	Use a proportion to convert among customary and metric units		
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.		
Score 2.0 Progressing	The student will:		<p style="text-align: center;">Sample Tasks</p> <p>Identify or match vocabulary</p> <p>Solve the equation $x+6= 12$</p>
	*Recognize or recall specific vocabulary, such as:		
	proportion, equation, expression, inverse operation, reciprocal, addition property of equality, subtraction property of equality, multiplication property of equality, division property of equality		
	*Perform basic processes, such as:		
	Solve one-step equations involving integers		
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.		
Score 1.0 Beginning	The student will simplify one-step expressions involving integers and fractions and identify equivalent fractions.		
0.5	The student has partial success at Level 1.		
Score 0.0	Even with help, the student has no success.		Does $3/6 = 4/8$?

Strand:Geometry			
Topic: 7.GM.2 - .3 Scale & Similar Figures			
Level: 7			
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.		<u>Sample Tasks</u>
			*A courtyard with the area of ___ needs to be covered with sod. The length of one grid square (below) corresponds to 1.5 feet in the courtyard. The area will be covered with sod pieces that are 5 in by 5 in. Draw the courtyard on the grid below and then tell how many sod pieces are needed?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.		
Score 3.0 Proficient	The student will:		<u>Sample Tasks</u>
	<ul style="list-style-type: none"> *Identify and describe similarity relationships of polygons including indirect measurement *Solve problems involving similarity, including computing actual lengths and areas from a scale drawing *Solve real-world problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing *Create a scale drawing by using proportional reasoning. 		<ul style="list-style-type: none"> *Find the missing value for the pair of similar figures. *Amy is 26 inches tall and casts a shadow that is 12 inches long. At the same time, her dog casts a shadow that is 6 inches long. How tall is the dog? *Use scale to determine a missing dimension *Create a scale drawing
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.		
Score 2.0 Progressing	The student will:		<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:		<ul style="list-style-type: none"> *Identify or match vocabulary *Solve a proportion *Determine if two shapes are similar
	*scale factors, similar, congruent, constant of proportionality		
	*Perform basic processes, such as:		
*determine if two figures are similar			
	* find the missing side of two similar figures that have the same orientation		
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.		
Score 1.0 Beginning	Student will be able to do pre-requisite skills, such as		
	*Solve a proportion		

0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.
Score 0.0	Even with help, the student has no success.

Strand: Computation		
Topic: 7.C.6 Percent		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*The bicycle shop buys bicycle tires for \$25 each. The owner adds 120% markup to the cost of the tires. The owner changes the markup to 100% after complaints from customers. How much less will the owner make?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	apply the percent proportion to solve real world problems; solves problems involving percent, simple interest, tax, markups, markdowns, gratuities, commissions, fees, percent increase and decrease, error.	*Find 72% of 45 *A pair of shoes that cost \$95 is on sale for 15% off. What is the sale price?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*percent, simple interest, tax, markups, markdowns, gratuities, commissions, fees, percent increase and decrease, error	
	*Perform basic processes, such as: *determine if it is an increase or a decrease *convert fractions, decimals, and percents	*Convert 5% to a decimal *Write $\frac{3}{4}$ as a percent *Does tax increase or decrease the price?
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will identify a percent from a picture and determine the reasonableness of a percent.	
0.5	The student has partial success at Level 1.	
Score 0.0	The student has no success.	Should 60% of 14 be more or less than 7?

Strand: Algebra and Functions

Topic: 7.AF.1 Expressions

Level: 7

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*Factor completely. $6x^2y + 2xy - 14xy^2$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Apply the properties of operations to create equivalent linear expressions, including situations that involve factoring; can justify each step in the process.	*Simplify the following expression: $3a + 7a + 0a$ *Factor completely: $8x - 10y$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *key words for each operation *commutative, identity, inverse, associative, and distributive properties *equivalent expressions *Perform basic processes, such as:	*Give students a problem and have them match which property it is an example of. *Given key operation words, match it with the correct operation (What operation tells you to find the quotient?).
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will perform basic operations with integers; the student will simplify expressions using the order of operations	
0.5	The student has partial success at Level 1	

Score 0.0	The student has no success.
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Strand: Algebra and Functions

Topic: 7.AF.2 Equations

Level: 7

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		* $3x + 12 = 6x + 24$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve equations of the form $px + q = r$ and $p(x + q) = r$ fluently, where p, q, and r are specific rational numbers; represents real-world problems using equations of these forms and solves such problems	*Solve two step equations: $2(b - 3) = -24$ *The perimeter of a rectangle is 18 inches with a length of 5 inches. Write and solve an equation to find the width "w" of the rectangle.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *inverse operations *"=" means "is" *Perform basic processes, such as: *isolating the variable for one step equations	* $4x = 36$ * $3q = -18$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	Determine if a number is a solution to an equation; simplify expressions involving integers	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	The student has no success.	

Strand: Algebra and Functions		
Topic: 7.AF.4 - .5 & .9 Slope		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	understand and compares different equations representing the same proportional relationship	*Mr. Brock started at an elevation of 12,000 and hiked down to base camp ab 2400 feet. The graph shows his progress for the first 50 minutes of his hike. He reached the camp at 4:00 p.m. If he hiked at a constant rate, what time did he begin?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	graph a line given its slope and a point on the line; finds the slope of a line given its graph; identifies and describe situations with constant or varying rates of change; writes equations and draw graphs that describe a linear function in the form $y = mx$ where m is the slope of the line.	*Graph the line through the (2,3) with a slope of 5 *Find the slope of a line when given the graph *Given a graph, determine if the rate of change is constant (straight line) or variable (not a straight line) *Given a verbal scenario, complete the table, graph the relationship, identify the slope and write the equation in the form of $y = mx$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: *slope, linear/ non-linear, vertical, horizontal, zero slope, undefined, constant rate of change, varying rate of change *Perform basic processes, such as: *identify/label x and y axes, quadrants, origin *identify and graph ordered pair	*Given a graph, be able to label all parts *Given a point from a graph, write an ordered pair *Given an ordered pair, graph it *Explain slope as vertical change (y) over horizontal change (x)
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will be able to plots points on a number line and simplify ratios.	
0.5	The student has partial success on Level 1 content.	
Score 0.0	The student has no success.	

Strand: Algebra and Functions

Topic: 7.AF.6 - .7 & .9 Proportional Reasoning

Level: 7

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks					
	understand and compare different equations representing the same proportional relationship.	*Do both equations represent the same relationship? Explain. $y = 1/5 x$, $x = 5y$					
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.						
Score 3.0 Proficient	The student will:	Sample Tasks					
	write equations and draw graphs to represent proportional relationships and recognizes that these situations are described by a linear function in the form $y = mx$, where m is equal to the unit rate.	<table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td align="center">3</td><td align="center">12</td></tr> <tr><td align="center">4</td><td align="center">16</td></tr> <tr><td align="center">5</td><td align="center">20</td></tr> </table> <p>*Given the table, write an equation and draw a graph to represent proportional relationships.</p>	3	12	4	16	5
3	12						
4	16						
5	20						
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.						
Score 2.0 Progressing	The student will:	Sample Tasks					
	<p>*Recognize or recall specific vocabulary, such as:</p> <p>*constant of proportionality , proportional relationship</p> <p>*Perform basic processes, such as:</p> <p>*decide whether two quantities are in a proportional relationship</p> <p>*identifies the unit rate or constant of proportionality in tables, graphs, equations, and verbal descriptions of proportional relationships.</p>	<p>*Bill walked 6 miles in 2 hours. Linda walked 11 miles in 4 hours. Are these rates in proportion? What is the constant of proportionality?</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr><td align="center">10</td><td align="center">20</td><td align="center">30</td></tr> <tr><td align="center">1</td><td align="center">2</td><td align="center">3</td></tr> </table> <p>*$Y = 3x$ $Y = 3x + 5$</p>	10	20	30	1	2
10	20	30					
1	2	3					
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.						
Score 1.0 Beginning	The student will simplify and write ratios; solve one-step equations						
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.						
Score 0.0	The student has no success.						

Strand:Geometry		
Topic: 7.GM.5 - .6 - .7 Geometric Formulas		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*Find area of complex shape. *If you were to slice it horizontally, what shape would you have? *Given the surface area and radius, find the height of the object.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Understand the formulas for area and circumference of a circle, use them to solve real-world problems; gives an informal derivation of the relationship between circumference and area of a circle; solves real-world problems involving volume of cylinders and three-dimensional objects composed of right rectangular prisms; constructs nets for right rectangular prisms and cylinders and use the nets to compute the surface area; apply this technique to solve real-world and other mathematical problems.	*Find radius, diameter, circumference and area given the circle. *Give students C and they have to find the A. *Provide an image of a prism and include the dimensions. For example, if the prism is filled 35% full, how much space is occupied? *Given a rectangular prism, draw the net, label all sides, and find the surface area. *Given a cylinder, draw the net, label all sides, and find the surface area.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*circumference, area, net, label parts of each shape	
	*Perform basic processes, such as:	*Identify or match vocabulary. *Draw, label, match names to parts. *Match a net with a three dimensional object.
	*match the shape to the formula, match net with 3D object	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will simplify expressions with integers, evaluate expressions, and solve one-step equations	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	The student has no success.	

Strand: Computation		
Topic: 7.C.7 - .8 Computation with Rational Numbers		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	solve real-world problems with rational numbers by using multiple operations.	*Jared has \$200 in his checking account. He wants to purchase a guitar for \$392.51. To earn money, he mows lawns at \$12 an hour. He spent $6\frac{3}{4}$ mowing on Monday, $7\frac{2}{3}$ hours mowing on Tuesday and $5\frac{1}{2}$ hours Wednesday. He deposits all of his mowing money and then purchases the guitar. How much does he have left in his account?
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	compute with rational numbers fluently using a standard algorithmic approach; solves real-world problems with rational numbers by using one or two operations.	* $8.3 - (-2.8)$, $-5\frac{1}{2} + (-3\ 310)$, $(-\frac{1}{2})(\frac{2}{3})$, $-51.25 / 0.5$ *Tara needs $2\frac{3}{5}$ pounds of clay for each pot. How many pots can she make with 13 pounds of clay? *John has \$850 in his savings account. He deposits \$525 and then withdraws \$230. How much does he have left?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*sum, difference, quotient, product, integers	
	*Perform basic processes, such as:	*What operation would you use to find the sum, difference, product, quotient? * $4 \times (-5)$, $4 + (-5)$
	*computation with integers	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will perform computations with positive rational numbers.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	The student has no success.	

Strand: Algebra and Functions		
Topic: 7.AF.3 Inequalities		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		*Solve a compound inequality: $7 < b + 2 < 12$
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Solve inequalities of the form $px + q = r$ ($>$ or \geq) r or $px + q$ ($<$ or \leq) r , where p , q , and r are specific rational numbers; represents real-world problems using inequalities of these forms and solve such problems; graphs the solution set of the inequality and interpret it in the context of the problem.	*Solve $3x + 1 > 22$, then label the number on a number line *Jim wants to purchase a new bike that cost \$149. He works to save money by mowing his neighbor's grass for \$15 a week. Jim has already saved \$31. Write an inequality that can be used to find the minimum number of weeks Jim must mow the grass.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: *know what $<$, $>$, \leq , & \geq mean *Perform basic processes, such as: *graph and write an inequality *solve one step inequalities	*Solve: $4m > 84$ *Which symbol can you use for more than?
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will solve one-step equations.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	The student has no success.	

Strand: Data, Probability & Statistics		
Topic: 7.DSP.5 -.6 & .7 Probability		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*Given percentages of an outcome occurring, find the probability of a specific outcome occurring.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring; can approximate the probability of a chance event by collecting data on the chance process; develops probability models that include the sample space and probabilities of outcomes to represent simple events with equally likely outcomes and uses the model to predict outcomes.	*Find probability of an event and then relate the probability to the likelihood that the event would occur. *Given a circle graph, determine probability. *Given a data set, determine experimental probability and compare it to theoretical probability.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*probability, outcome, frequency, relative frequency, event, sample space	
	*Perform basic processes, such as:	*Identify and match vocabulary.
	*match vocabulary	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will simplify fractions, write ratios, and solve proportions.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	The student has no success.	

Strand: Data, Probability & Statistics		
Topic: 7.DSP.3 Data Analysis		
Level: 7		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		*Find a missing value in a data set given all other values and the mean.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Finds, uses, and interprets measures of center (mean and median) and measures of spread (range, interquartile range, and mean absolute deviation) for numerical data from random samples to draw comparative inferences about two populations; makes observations about the degree of visual overlap of two numerical data distributions represented in line plots or box plots; describes how data, particularly outliers, added to a data set may affect the mean and/or median.	*Find measures of center and spread. *For two data sets, compare measures of center and spread. *Construct a dot plot and answer questions about overlap and how outliers affect data. *Given a box plot answer questions about overlap and how outliers affect data.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*mean, median, range, iqr, mad, line plot, box plot, outlier, overlap	
	*Perform basic processes, such as:	*Identify and match vocabulary.
	*match vocabulary	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	The student will order rational numbers and perform operations with rational numbers.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	The student has no success.	

Strand:		
Topic:		
Level:		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	
	*Perform basic processes, such as:	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Computation		
Topic: 8.C.1		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		In a class election, Murray received $\frac{2}{3}$ of the votes and Sara received $\frac{1}{5}$ of the votes. Makayla received the rest. What fraction of the votes did Makayla receive? Explain how you got the answer
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Solve real world problems involving all four operations with real numbers.	Amanda rode her bike for 2 hours at a rate of 12.5 miles per hour. How many miles did she travel? How many kilometers did she travel?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as:	
	Understand basic vocabulary of the four operations, exponents, and square roots.	$\frac{1}{2} + \frac{3}{5} =$ Square root of 81=
	*Perform basic processes, such as: Add, subtract, multiply, divide all real numbers.	$6.7 - (-2.8) =$ $\frac{3}{5} \times -\frac{2}{7} =$
1.5		
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Real Number System

Topic: 8.NS.1, .2, .4 Real Number Systems

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		Solve the cubed root of 27, then explain how you got your answer. Solve the 4th root of 81, then explain how you arrived at your answer.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Give examples of rational and irrational numbers and explain the difference between them. Understand that every number has a decimal expansion; for rational numbers, show that the decimal expansion terminates or repeats, and convert a decimal expansion that repeats into a rational number. Use rational approximations of irrational numbers to compare the size of irrational numbers, plot them approximately on a number line, and estimate the value of expressions involving irrational numbers. Use square root symbols to represent solutions to equations of the form $x^2 = p$, where p is a positive rational number. Use square root symbols to represent solutions to equations of the form $x^2 = p$, where p is a positive rational number. Place rational and irrational numbers on a number line. Write a repeating decimal as a fraction.	*Write 0.454545... as a fraction. *Order the following numbers on a number line. -3, $-\pi$, 30, -25, square root of 23, -1.75 *Solve $x^2=36$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: Rational Number and Irrational Number. *Perform basic processes, such as: Place rational on a number line. Evaluate radicals and exponents.	Rational numbers are numbers that can be written as _____. Irrational numbers are numbers that _____ be written as fractions.
1.5		
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions		
Topic: 8.AF.1 Equations & Inequalities		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		*Simplify the equation: $12(4-x)+6x=12x-9$. Justify the steps.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Solve real-world and other mathematical problems involving numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Interpret scientific notation that has been generated by technology, such as a scientific calculator, graphing calculator, or excel spreadsheet.	$*5(x-4)=25$ $*y+2(3y-1)=19$ $*14(x+8)+3=10$ $*0.5(m-6)+1.5m=9$ *Amanda and Laurel went to the Vera Bradley Sale. Amanda bought 4 purses and also spent \$30 on a wallet. Laurel bought 6 purses. Together they spent a total of \$530. How much was each purse?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: Like Terms, Variable, Constant, Coefficient, and Solution. *Perform basic processes, such as: Solve two-step equations and inequalities. Write and solve a two-step equation from a story problem. Simplify expressions using Distributive Property and Combining Like Terms.	Fill in the blank with the following: Like Terms, Variable, Constant, Coefficient, and Solution. $3x+5=-10$ $12x-3=6$ $2+0.4x=10$ $7+3x>28$ $-3x+7\leq 28$ Paul follows these two steps to prepare a roast. Step 1: Preheat the oven for 10 minutes. Step 2: Place roast in oven and cook for 20 minutes per pound. Last week, it took a total of 90 minutes for Paul to prepare the roast. Write an equation that can be used to determine the weight, in pounds, Paul prepared. $13(12x-36)$ $5a+2-6a+12$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 8.AF.2 Solutions

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		*Create a multi-step equation that would result in No Solution.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by transforming a given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).	$*8(x+2)=2x+16$ $*4x+16=12(8x+16)$ $*1.8y - 16.3 = -1.9y + 13.3$ Fill in each box to create an equation with the type of solution given. No Solution: $3x+12 = 3x+ \square$ Infinitely Many Solutions: $12(4x-10) = \square -5$ One Solution: $5x+7 = \square +12$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: No Solution, One Solution, and Infinitely Many Solutions *Perform basic processes, such as: Solve two-step and multi-step equations with variables on one side.	True or False? An equation with a solution like $2x+3=2x-3$ has Infinitely Many Solutions. An equation with an answer like $5=3$ has No Solution. An equation with an answer like $x=-2$ has One Solution. $4x+10=-30$ $-2(4x-3)+2x=0$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 8.AF.3-5 Functions

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		Create and graph a nonlinear function.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Determine if each relation is a function, linear, nonlinear. Complete an input/output table.	Determine if a graph, table of values, mapping diagram, or set of points is a function. Explain why or why not. Determine if a graph, equation, or table of values is linear or nonlinear.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	<p>*Recognize or recall specific vocabulary, such as: Relation, Nonlinear Function, Function</p> <p>*Perform basic processes, such as: plotting points on a coordinate plane.</p>	<p>*True or False? *Function is a relation in which each input has one output. *Linear Function is a set of ordered pairs. *Nonlinear Function is a straight line. *Relation is a set of ordered pairs. *Plot the following points on a coordinate plane: (1, 2), (-2, -3), (0, 3), (4, 0), (-1, 5), and (2, -3). *Identify Linear or Nonlinear lines.</p>
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Algebra and Functions

Topic: 8.AF.5-.7 Slope

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks									
		*Create a real world situation that involves rate of change and an initial value.									
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.										
Score 3.0 Proficient	The student will:	Sample Tasks									
	<p>Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. Describe similarities and differences between linear and nonlinear functions from tables, graphs, verbal descriptions, and equations.</p> <p>Construct a function to model a linear relationship between two quantities given a verbal description, table of values, or graph. Recognize in $y = mx + b$ that m is the slope (rate of change) and b is the y-intercept of the graph, and describe the meaning of each in the context of a problem.</p> <p>Compare properties of two linear functions given in different forms, such as a table of values, equation, verbal description, and graph (e.g., compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed).</p>	<p>Find the slope from the following.</p> <p>a. <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>x</td><td>y</td></tr> <tr><td>5</td><td>-2</td></tr> <tr><td>2</td><td>-4</td></tr> <tr><td>-1</td><td>-6</td></tr> <tr><td>-4</td><td>-8</td></tr> </table> b. $(-2, 3)$ $(5, 9)$</p> <p>Find the slope and y-intercept from the equation. Is it linear or nonlinear?</p> <p>Find the slope and y-intercept from the equation. Is it linear or nonlinear? $y = \frac{2}{3}x + 1$ Graph $y = 2x - 6$. Lukas is saving \$40 each week. He already has \$200. Write a linear equation where y is the amount after x weeks. Determine what the slope and y-intercept represent in terms of the situation. Identify the greater unit of change when given more than one option.</p>	x	y	5	-2	2	-4	-1	-6	-4
x	y										
5	-2										
2	-4										
-1	-6										
-4	-8										
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.										
Score 2.0 Progressing	The student will:	Sample Tasks									
	<p>*Recognize or recall specific vocabulary, such as: Line, Vertical Line, Slope-Intercept Form, Rise/Run, Steepness, Change in y/Change in x, Undefined Slope, Zero Slope.</p> <p>*Perform basic processes, such as: Determine the type of slope from a graph. Determine the slope of a graph.</p>	<p>Define vocabulary.</p> <p>What type of slope is displayed? What is the slope of the line?</p>									
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.										
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.										
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.										

Score 0.0

Even with help, the student has no success.

Strand: Algebra & Functions

Topic: 8.AF.8 Systems

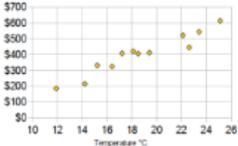
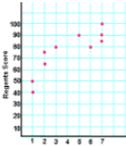
Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		Joy wants to rent a canoe that costs \$20 per hour plus a \$50 deposit. Elizabeth is also renting a canoe. The cost is represented in a table. Create and graph both equations to determine when they will be charged the same amount.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Understand that solutions to a system of two linear equations correspond to points of intersection of their graphs because points of intersection satisfy both equations simultaneously. Approximate the solution of a system of equations by graphing and interpreting the reasonableness of the approximation.	Identify the solution given the graph. Solve the system $y=2x-5$ and $y=1/2x-5$ by graphing. Wendy has \$10 in the bank and is saving \$3 per day. Teresa has \$12 in the bank and is saving \$2 per day. Graph the system to determine when they will have the same amount of money in the bank.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: parallel, solution, no solution, infinite, and one. *Perform basic processes, such as: identifying slope and y-intercept from an equation.	Identify slope and y-intercept from $y=2/3x+5$. Two lines that _____ have one solution. _____ line have infinitely many solutions.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Data, Probability, Statistics

Topic: 8..DSP.1-3 Scatter Plots

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		*Assume there is a scatter plot that shows the relationship between the total cost and number of packages of paper. The equation of the line of best fit is $y=-2x+40$. Predict how much you would pay for 12 packages. Justify your answer using words, numbers, and/or symbols.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	<p>Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantitative variables. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.</p> <p>Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and describe the model fit by judging the closeness of the data points to the line.</p> <p>Write and use equations that model linear relationships to make predictions, including interpolation and extrapolation, in real-world situations involving bivariate measurement data; interpret the slope and y-intercept.</p>	<p>What type of association is shown? Strong/Weak, Positive/Negative, Linear/Nonlinear?</p>  <p>Draw a line of best fit. Predict the grade a student will get after 10 hours of study.</p>  <p>Given a table of values, construct a scatter plot. Label the x-axis and y-axis and include the scales. Determine the slope, y-intercept, and equation of the line of best fit shown below. Then, interpret the scatter plot.</p>
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	<p>*Recognize or recall specific vocabulary, such as: Association, Negative Association, No Association, and Outlier.</p> <p>*Perform basic processes, such as: Determine the type of slope. Identify an outlier.</p>	<p>Positive Association means as the x-value increases, the y-value increases. Negative Association means as the x-value decreases, the y-value decreases. No Association means there is no pattern. An outlier is a point that is close to the other points plotted. Draw a line that has positive slope. Find the outlier in the data set: -2, 3, 1, 100, 4</p>
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0	Even with help, the student has no success.
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Strand: Geometry		
Topic: 8.GM.7-9 Pythagorean Theorem		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		A triangle has sides with lengths of 8 miles, 15 miles and 17 miles. Use mathematical reasoning to determine if this is a right triangle. Justify using words, numbers, and/or symbols.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and other mathematical problems in two dimensions. Apply the Pythagorean Theorem to find the distance between two points in a coordinate plane. Use inductive reasoning to explain the Pythagorean relationship.	The base of a 12 foot ladder is 8 feet from the wall. How high can the ladder reach? Draw a picture, label each side, use to find the missing length Given a picture with sides labeled, find the missing side Given points (already plotted) find the distance between the two points Given points (they plot) find the distance between two points Using a diagram, explain the Pythagorean relationship.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: right triangle, leg, hypotenuse, Pythagorean Theorem formula, square, square root *Perform basic processes, such as: square a number, take the square root of a number, solve one-step equations involving square roots	Vocabulary and characteristics of Pythagorean Theorem Leg, hypotenuse, square root. $Solve 4^2$ $4 = c^2$ $\sqrt{90}$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Geometry		
Topic: 8.GM.1-2 Formulas		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		Find the slant height of a cone that has a height of 10 in and a diameter of 4 in. Given a picture, determine what solid is formed by rotating the figure about the y-axis.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Identify, define and describe attributes of three-dimensional geometric objects (right rectangular prisms, cylinders, cones, spheres, and pyramids). Explore the effects of slicing these objects using appropriate technology and describe the two-dimensional figure that results. Solve real-world and other mathematical problems involving volume of cones, spheres, and pyramids and surface area of spheres.	Identify the base of each object shown. Find the volume of the cone, sphere, and pyramid shown. Find the surface area of the sphere shown. How much water would fit inside a hemisphere that has a radius of 2 in. What figure is formed from slicing a cone parallel to the base? Name the type of slice given the resulting shape. Find the height of a cone that has a radius of 3 ft. and a volume of 24π cubic feet. Find the radius of a cone that has a volume of 376.8 cubic cm and a height of 10 cm.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Cone, pyramid, right rectangular prism, cylinder, sphere, cube, parallel, perpendicular, surface area, volume, base. *Perform basic processes, such as: multiplying rational numbers	Identify the set of lines that are parallel and perpendicular. Fill in the blank with the correct term. Surface area is the amount of space _____ an object. Volume is the amount of space _____ an object. Simplify $13 \cdot 6 \cdot 2$ Simplify $4 \cdot \pi \cdot 3$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Geometry		
Topic: 8.GM.3-6		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		Reflect $\triangle ABC$ across the line $x=5$. Which reflection is this similar to, a reflection about the x-axis or y-axis? _____
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Identify, define and describe attributes of three-dimensional geometric objects (right rectangular prisms, cylinders, cones, spheres, and pyramids). Explore the effects of slicing these objects using appropriate technology and describe the two-dimensional figure that results. Solve real-world and other mathematical problems involving volume of cones, spheres, and pyramids and surface area of spheres.	In $\triangle ABC$, the measure of side AB is 3 in. The figure is reflected across the y-axis. What is the measure of side AB after the reflection? In $\triangle ABC$, the area is 30 square units. The figure is translated 4 units up and 2 units left, then rotated 180° about the origin. What is the area of $\triangle A'B'C'$? Rotate rectangle ABCD 270° clockwise about the origin. Reflect trapezoid ABCD about the x-axis. Translate $\triangle ABC$ using the rule $(x+2, y-5)$. Dilate rectangle ABCD by a scale factor of 3. Describe the sequence of transformations (not including dilations).
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: Translation, Rotation, Reflection, Dilation, Similar, Congruent, Transformation, 2-Dimensional, ordered pair, origin, x-axis, y-axis, prime (after transformation) *Perform basic processes, such as: plotting ordered pairs	Label the axes, origin, and plot points on a coordinate plane. Matching vocabulary to definition.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Number Sense

Topic: 8.NS.3 Exponents

Level: 8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		Using what you learned about exponent rules, determine if $\frac{x^3}{x^5} = \frac{x^2}{x^5}$. Why or why not? Explain your reasoning. Determine two ways can you write 3 to the third power as a quotient of two exponential terms. At least one must include a negative exponent.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Given a numer	$\frac{(2^3)^4}{2^{11} \cdot 2}$
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: base, exponent, power, simplify, evaluate	Matching vocabulary to the correct definition. Identify the base and the exponent of 5 to the third power.
	*Perform basic processes, such as: Evaluate basic operations using exponents.	$2^2 \cdot 2^3$ $\frac{4^5}{4}$ $(\frac{1}{3})^2$
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0

Even with help, the student has no success.

Strand: Computation		
Topic: 8.C.2 Scientific Notation		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
		The world's largest ice cream cone has a height of 2.05×10^4 mm. The radius is 2200 mm. How much ice cream can fit inside the cone? Leave your answer in scientific notation.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Solve real-world and other mathematical problems involving numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Interpret scientific notation that has been generated by technology, such as a scientific calculator, graphing calculator, or excel spreadsheet.	*Write 0.0045 in scientific notation. *Write 0.00487×10^4 $(7 \times 10^4) + (3 \times 10^4)$ $(9 \times 10^6) - (5 \times 10^7)$ $(4.5 \times 10^{-3}) \times (4.2 \times 10^2)$ $(1.2 \times 10^3) \div (4.5 \times 10^8)$ *Real world story problems involving scientific notation
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: rational number, Irrational number, scientific notation, parenthesis, standard form *Perform basic processes, such as: Simplifying exponential expressions Use powers of 10 to move decimal points.	* $25 \cdot 29 =$ * $41346 =$ * $0.253 \times \underline{\hspace{1cm}} = 253$ * $\underline{\hspace{1cm}} \times 1000 = 345.2$ *Write three million, five hundred thousand, two hundred in standard form.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Data, Statistics, Probability		
Topic: 8.GM.4-6		
Level: 8		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		A bag contains 10 marbles. Some are red, some are blue. The probability of selecting a red marble, then a blue marble, without replacement, is $\frac{8}{45}$. How many of each color are in the bag? Explain how you arrived at your answer using words, numbers, and /or symbols.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs. Understand and use appropriate terminology to describe independent, dependent, complementary, and mutually exclusive events. Represent sample spaces and find probabilities of compound events (independent and dependent) using methods, such as organized lists, tables, and tree diagrams. For events with a large number of outcomes, understand the use of the multiplication counting principle. Develop the multiplication counting principle and apply it to situations with a large number of outcomes.	You are selecting a piece of fruit, eat it, and then select another piece of fruit. Are the events independent or dependent? Are rolling a 3 and rolling a 2 mutually exclusive events? A bag contains 2 blue, 3 green, and 5 red marbles. Find the probability of choosing a blue marble, putting it back, then choosing a red marble. A spinner contains the numbers 1-8. Find the probability of landing on a 1 or a 5? You have 3 meats, 5 cheeses, and 2 breads. Create tree diagram to show the number of outcomes. You have 7 shirts, 8 pants, and 4 shoes. How many outfits can you create?
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: Independent, Dependent, Mutually Exclusive, Fundamental Counting Principal. *Perform basic processes, such as: finding probability of simple events.	Matching vocabulary to the correct definition. Find the probability of rolling a 4 on a die.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0

Even with help, the student has no success.

Strand: Process Standard

Topic: PS.3 - Construct Arguments/Critique Reasoning

Level: 6-8

Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
		Compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. They justify whether a given statement is true always, sometimes, or never
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Use: clear definitions, correct mathematical language, state the meaning of symbols they choose, use mathematical signs consistently and appropriately, express solutions clearly and logically, calculate accurately and efficiently, specify units and label answers correctly, express answers precisely and appropriately for the problem, and be able to explain steps clearly using symbols and words.	Write an explanation of the process used to arrive at a desired answer. Use numbers, variable, symbols to represent mathematical thinking. Conduct an error analysis on their own or another's work.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	Show the correct process with incorrect computation.	Solve a problem mathematically, but not be able to provide a written explanation of the process.
	Show the correct answer but cannot fully explain or justify in words.	
	Show correct answer but labels used incorrectly.	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	

Score 0.0

Even with help, the student has no success.