Multiple-Choice Answer Key

Name: _____

Session 1

1.	C		16.	A
2.	C		17.	C
3.	D		18.	C
4.	C		19.	B
5.	D		20.	B
6.	D		21.	A
7.	B		22.	B
8.	B		23.	D
9.	C		24.	C
10.	A		25.	C
11.	D		26.	D
12.	A		27.	D
13.	D		28.	D
14.	C		29.	C
15.	A		30.	D

Multiple-Choice Answer Key

Name: _____

Session 2

31.	**B**		46.	**B**
32.	**A**		47.	**D**
33.	**A**		48.	**B**
34.	**A**		49.	**A**
35.	**B**		50.	**B**
36.	**B**		51.	**C**
37.	**D**		52.	**A**
38.	**D**		53.	**A**
39.	**C**		54.	**A**
40.	**D**		55.	**B**
41.	**D**		56.	**A**
42.	**C**		57.	**D**
43.	**C**		58.	**D**
44.	**C**		59.	**C**
45.	**D**		60.	**B**

Constructed-Response Scoring Rubrics

Session 3

61.

Scoring Rubric	
4	The student earns 4 points.
3	The student earns 3 points.
2	The student earns 2 points.
1	The student earns 1 point OR demonstrates minimal understanding of the standard being measured.
0	The student's response is incorrect, irrelevant to the skill or standard being measured, or blank.

Sample Answer:

Part A.

Triangle Measures

Measures	Not a Triangle	Unique Triangle	More Than One Triangle
11 in., 11 in., 60°		X	
25°, 50°, 25°	X		
5 ft, 6 ft, 10 ft		X	
68°, 109°, 3°			X
13 cm, 7 cm, 6 cm	X		
8 mm, 2 mm, 90°			X

Part B. Since we know that at least two of the side lengths are equal, this has to be an isosceles or equilateral triangle. Also, one of the three angles must measure 60°. An isosceles triangle with one 60° angle must have all angles equal to 60°, or equiangular. An equiangular triangle is also an equilateral triangle. Since we know the exact length of the sides, it must be a unique triangle because there is only one equilateral/equiangular triangle that can be created with side lengths of 11 inches.

Part C. 11 inches, 11 inches, 22 inches (or greater)
                 OR
          11 inches, 11 inches, 180° (or greater)
                 OR
          11 inches, 120° (or greater), 60°

61.

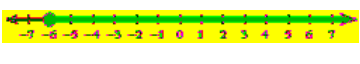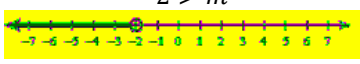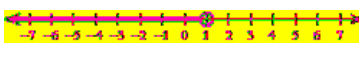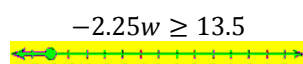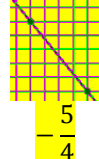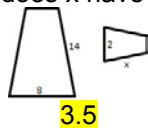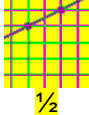| Points Assigned: |
| --- |
| Part A. 2 points
2 points for correctly categorizing all 5 sets of measures (not including the given set)
OR
1 point for correctly categorizing 3 or 4 sets of measures (not including the given set)

Part B. 1 point
1 point for giving a complete and accurate explanation of why the measures produce a unique triangle
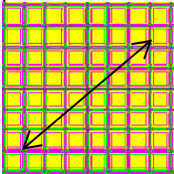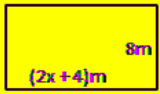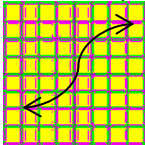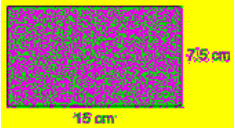
Part C. 1 point
1 point for changing only one of the measures to one (either length or angle measure) that would not allow for a triangle to be created |

62.

Scoring Rubric	
4	The student earns 5 points.
3	The student earns 3 or 4 points.
2	The student earns 2 points.
1	The student earns 1 point OR demonstrates minimal understanding of the standard being measured.
0	The student's response is incorrect, irrelevant to the skill or standard being measured, or blank.

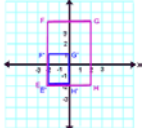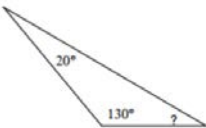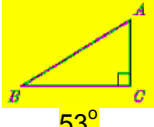| **Sample Answer:** |
|---|
| Part A. 80

 Part B. Subtract 80 from 200 or multiply 200 by $\frac{3}{5}$ or equivalent.

 Part C. 20%. First, I know there are 80 seventh graders and 30% of them are in the band. 30% of 80 is 24, so there are also 24 sixth graders. Since there are 120 sixth graders total, I know that $\frac{24}{120} = \frac{1}{5} = 20\%$ of the sixth graders are in the band. |
| **Points Assigned:** |
| Part A. 1 point
 1 point for correctly determining the number of seventh graders

 Part B. 2 points
 1 point for **each** of the 2 complete and accurate descriptions of how to determine the number of sixth graders

 Part C. 2 points
 1 point for correctly determining the percentage of sixth graders in the band
 AND
 1 point for giving a complete and accurate explanation of how to determine the percentage of sixth graders in the band |

Note: Scorers should follow along with the student's work throughout. If the student makes an error in a previous part and subsequent answers are correct based on the earlier error, the student should not be penalized again.

Monday	Tuesday	Wednesday	Thursday
Write an inequality that represents the graph below: $x \geq -6$	Graph the inequality on a number line: $-2 > m$	Write an inequality that represents the graph below: $x < 1$	Solve and graph the inequality on a number line: $-2.25w \geq 13.5$
Johnny must learn more than 10 new plays before the big game. He has already learned 4. Write an inequality that represents how many more plays he needs to learn to reach his goal? x > 6	Which is NOT a solution of the inequality $5 - 2x \geq -3$? A) 0 B) 2 C) 4 D) 5	Write an inequality that represents ten less than four times a number is more than 1000. $4x - 10 > 1000$	A business has a goal of selling 500 bags of chips. With 3 days left they have 322 to go. At least how many do they need to average per day to meet their goal? $x > 107$
At a pie eating contest, Jonny ate 8 pies in 5 minutes. How much time did he spend on each pie? 37.5 seconds	Janet completed this entire column of math homework in 10 minutes. How many seconds per question did Janet spend? 1.25 minute or 1 minute and 15 seconds	Steve increases his math average by 9 points over a period of 15 weeks. How many points per week did he average? 0.6 points	Burger King offers a deal of 10 chicken nuggets for $1.49. How much is this per nugget? 15 cents per nugget
Which pair of ratios does not form a true proportion? A) 6:16 and 21:56 B) 2 to10 and 15 to 75 C) $\frac{9}{11} = \frac{27}{15}$ D) y = 5x	Divide: $\dfrac{-56.72}{-8}$ 7.09	Tim walked 16 laps in 40 minutes while Jim walked 30 laps in an hour and 15 minutes. Who is the faster walker? Neither, same speed	Jen has read $\frac{4}{5}$ of a book. The next day she read $\frac{2}{3}$ of what she had left. What fraction of the book is left to read? $\frac{1}{15}$
Bill is a car salesman. He earns $200 for every car he sells plus a 3% commission. If Bill sells 3 cars in one week for a total of $32,343, what are his total earnings for the week? $1570.29	In one year Angelica's height went from 60 inches to 63 inches. What was the percent of increase in Angelica's height? 5%	Emily estimated that there were 315 students at a soccer game. The actual number of students at the game was 350. What was the percent error of her estimate? 10%	Danna purchased a TV for $200. Eight months later, the same TV was selling for $160. What was the percent of decrease in the price? 20%
What is the slope between the points (4,–2) and (–1,0) $-\frac{2}{5}$	What is the slope indicated in the table below? X: 3, 6, 9, 12 Y: 7, 14, 21, 28 $\frac{7}{3}$	What is the slope below? $-\frac{5}{4}$	Find the missing value so that the two points have a slope of $-\frac{11}{7}$. (2,6) and (x, –5) x = 9
The scale of a map is $1\frac{1}{4}$ inches = 100 miles. On the map, two rivers are $4\frac{1}{8}$ inches apart. What is the distance between the two rivers? 330 miles	A rectangle has an area of 20 square feet. A similar rectangle has an area of 180 square feet. What is ratio of the areas of these similar rectangles? 1:9	Two fields at a state park are 1,000 meters from each other. On a map, the two fields are 8 centimeters apart. What scale is the map using? 1:125	Eric made a drawing of his rectangular bedroom with the scale 1 inch = 3 feet. The drawing was 5 inches long by 4 inches wide. What was the actual area of Eric's room? 180 ft²
The dimensions of a rectangular porch are 16 feet long by 12 feet wide. Use the scale of 1 inch = 4 feet and a ruler to make a scale drawing of the porch. 3in X 4in rectangle	Same dimensions to the left, make the same drawing except use a scale of 1 cm = 2 feet 8cm X 6cm rectangle	The shapes below are similar. What does x have to be? 3.5	Same question as above, except that the scale is 3 inches = 4.5 feet. 45 feet

Monday	Tuesday	Wednesday	Thursday
The table shows a bank account balance for 2-days. | **Balance**	–$51	–$75 | $ -24 How much did the bank account change over the two days?	Solve: $$\frac{k}{3} + 4 - 2k = -9k$$ $$k = -\frac{6}{11}$$	How many $\frac{5}{8}$-foot pieces of wood can you cut from a board that is $4\frac{5}{8}$ feet long? 7	Find the difference between $(x + 7)$ & $(3x + 4)$ –2x + 3
Sketch a graph that represents a proportional relationship. 	Write an inequality for x that would give this rectangle an area of at least 246 ft^2. 8m (2x +4)m $$8(2x + 4) \geq 246$$	Sketch a graph that does NOT represent a proportional relationship. 	Which is NOT a solution of the inequality $9 - 3x \geq -36$? A) 0 B) −22 C)50 D)11
Carlos bought an item online for $160 and he was charged an $8 fee for shipping. What percent of the sale price was the shipping fee? 5%	A store is having a sale in which all items are reduced by 20%. Including tax, Jennifer paid $21 for a pair of shorts. If the sales tax is 5%, what was the original price of the shorts? $25	John bought a cell phone for $99 and the 7% sales tax was added at the register. John gave the cashier six $20 bills, how much change should he receive? $14.07	A carpet layer can put down 400 square feet of carpeting in 2.5 hours. How many hours will it take him to lay 600 square feet of carpet? 3 hours and 45 minutes
What is the slope between the points (0,–3) and (–6,7)? $$-\frac{5}{3}$$	What is the slope indicated in the table below? <table><tr><td>X</td><td>4</td><td>8</td><td>12</td><td>16</td></tr><tr><td>Y</td><td>5</td><td>10</td><td>15</td><td>20</td></tr></table>$$\frac{5}{4}$$	What is the slope below? ½	Find the missing value so that the two points have a slope of $-\frac{13}{2}$. (–2,y) and (0, –4) y = 9
A diagram of a swimming pool is below. The width of the pool is 25 m, find the length of the actual pool? 7.5 cm 15 cm 12.5 meters	A rectangle has an area of 25 square feet. A similar rectangle has an area of 240 square feet. What is the ratio of the areas of these similar rectangles? $$\frac{5}{48}$$	What is the ratio from the big to the small rectangle? 2:1	A circle has a radius of 5 feet. What is the circumference of a bigger circle if the scale factor of the smaller to bigger is 2:5? 25π or 78.5
Solve the proportional equation below: $$\frac{3}{8} = \frac{2}{v}$$ $$v = \frac{16}{3}$$	Solve the proportional equation below: $$\frac{9}{10} = \frac{8}{a + 6}$$ $$a = \frac{26}{9}$$	Solve the proportional equation below: $$\frac{p}{2} = \frac{p - 2}{8}$$ $$p = -\frac{2}{3}$$	Solve the proportional equation below: $$\frac{10}{4} = \frac{x + 8}{x - 1}$$ x = 7
Find the missing angle: 20° 130° ? 30°	Which set of numbers **_cannot_** represent the lengths of the sides of a triangle? A) 6, 8, 11 B) 7, 5, 6 C) 7, 18, 11 D) 9, 12, 19	In right triangle ΔABC, $m\angle A = 37°. Find\ m\angle B$. 53°	If the base angle of an isosceles triangle measures 15°, what is the measure of the other angles? 15°, 150°
Classify the triangle in the above problem: Right, Scalene, Isosceles, Equilateral	Draw a right triangle that is also isosceles. 	If two angles of a triangle have measures of 42° and 20°, what is the measure of the third? 118°	Which set of measurements represents the lengths of an isosceles triangle? A) 3cm, 4cm, 5cm B) 13in, 13in, 26in C) 27in, 27in, 44in D) 18cm, 18cm, 38cm