End-of-Unit Sample Assessment, Grade 8

Name: _____ Date: _____

Grade 8: Unit 1
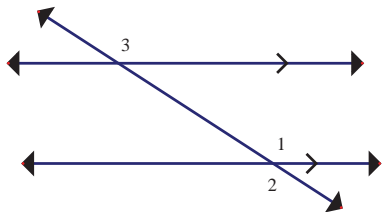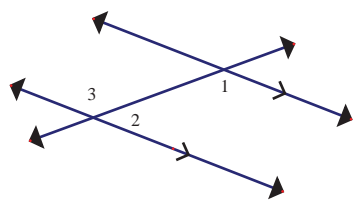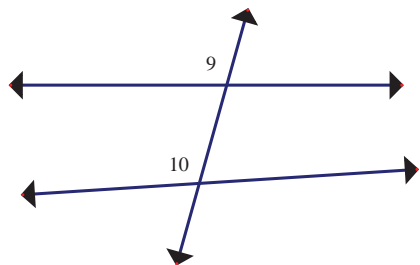
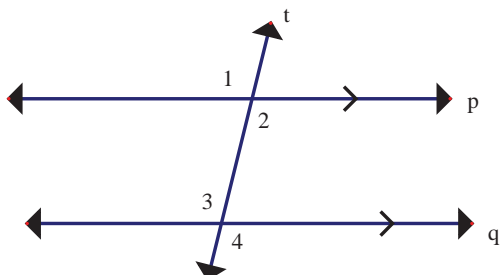**Congruence and Similarity**

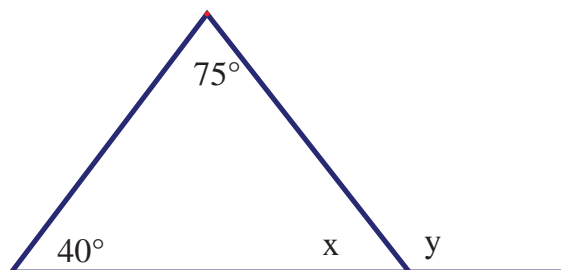| Understand congruence and similarity using physical models, transparencies, or geometry software.					
Standards	**For Full Credit, Be Sure to . . .**	**Test Questions**	**Score**	**Cluster Score**	**Percent**
8.G.5 • Describe angle relationships of parallel lines intersected by a transversal. • Describe angle relationships of the interior and exterior angles of triangles.	1 point for measuring angle 1 1 point for measuring angle 2 1 point for giving the reason for angle 1 1 point for giving the reason for angle 2	1	/4	/14	
	1 point for measuring angle 1 1 point measuring angle 2 1 point for giving the reason for angle 1 1 point for giving the reason for angle 2	2	/4		
	1 point for giving the correct yes or no response 1 point for a correct explanation	3	/2		
	1 point for using congruent angles progression 1 point for using correct types of angles used in reason	4	/2		
	1 point for giving correct measure of x 1 point for giving correct measure of y	5	/2		
8.G.1 and 8.G.3 • Demonstrate rotations, reflections, and translations (line segments, lines, parallel lines, angles).	1 point for correctly naming transformation 1 point for correctly describing transformation	6	/2	/11	
	1 point for giving each correct answer Minus 1 point for every additional incorrect answer beyond the 2 correct responses	7	/2		
	1 point for each correct answer Minus 1 point for every additional incorrect answer beyond the 2 correct responses	8	/2		
	1 point for drawing the rotation	9	/1		
	1 point for drawing A 1 point for drawing B 1 point for drawing C 1 point for naming the correct image	10	/4		

8.G.2 and 8.G.4					
• Verify that two-dimensional figures are congruent using transformations.	1 point for naming similar, congruent, or neither	11	/3		
	1 point for naming type of transformation				
	1 point for giving detailed description of transformation				
• Demonstrate the similarity of two-dimensional figures using transformations.	1 point for naming similar, congruent, or neither	12	/3		
	1 point for naming type of transformation				
	1 point for giving detailed description of transformation				
	1 point for naming similar, congruent, or neither	13	/3	/17	
	1 point for naming type of transformation				
	1 point for detailed giving description of transformation				
	1 point for naming similar, congruent, or neither	14	/3		
	1 point for naming the type of transformation				
	1 point for giving a detailed description of transformation				
	1 point for finding the scale factor	15	/3		
	1 point for finding side m				
	1 point for finding side n				
	1 point for giving coordinates of S	16	/2		
	1 point for finding the scale factor				
		Total	42		

Name _____ Teacher _____ Period _____ Date _____

END-OF-UNIT-ASSESSMENT
CONGRUENCE AND SIMILARITY

8.G.5 **Learning Target**: *I can describe angle relationships of parallel lines intersected by a transversal*	**Points**

1. **Given** $m\angle 3 = 150°$. **Find the** $m\angle 1$ **and** $m\angle 2$. **Explain your reasoning.**

$m\angle 1$: _____ $m\angle 2$: _____

Reason: **Reason:**

4

2. **Given** $m\angle 3 = 140°$. **Find the** $m\angle 1$ **and** $m\angle 2$. **Explain your reasoning.**

$m\angle 1$: _____ $m\angle 2$: _____

Reason: **Reason:**

4

3. **A student concludes that angle 9 and 10 are congruent. Is this correct? Explain why they are or are not congruent.**

2

	8.G.5 <u>**Learning Target**</u>: *I can describe angle relationships of parallel lines intersected by a transversal*		Points
4.	**Given** $p \parallel q$ **, describe two methods you can use to show that** $\angle 1 \cong \angle 4$ **.**	**Method #1:**	**2**
		Method #2:	**2**
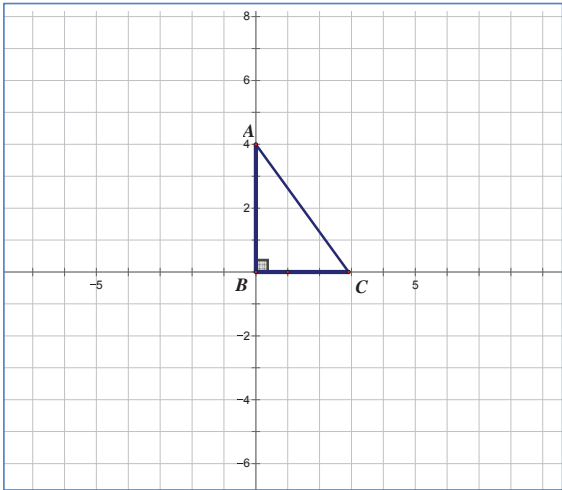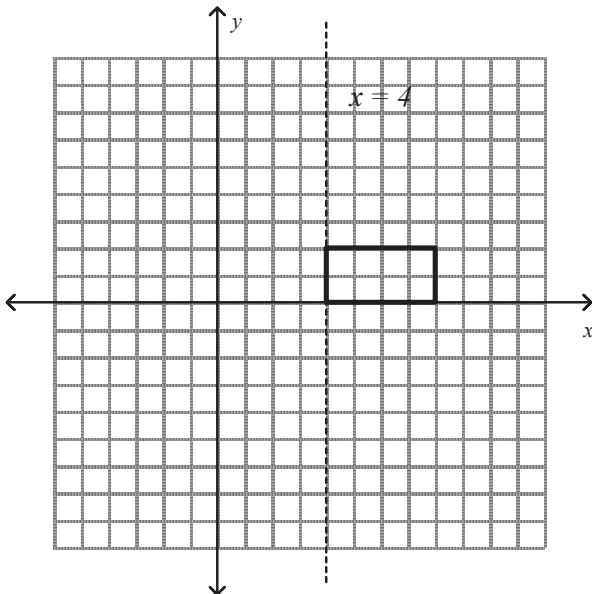
	8.G.5 <u>**Learning Target**</u>: *I can describe angle relationships of the interior and exterior angles of triangles*		Points
5.	**Find the measures of both** *x* **and** *y***.**	**Measure of x:**	**1**
		Measure of y:	**1**

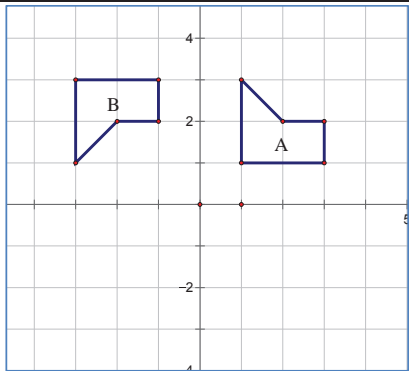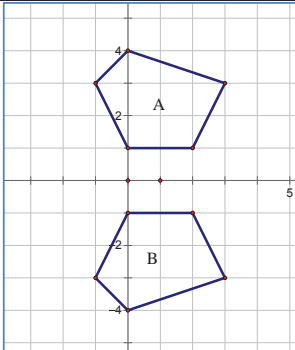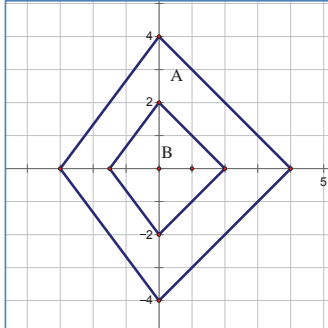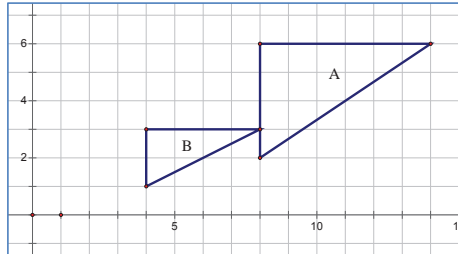| 8.G.1 & 8.G.3 **Learning Target**: *I can demonstrate rotations, reflections and translations (line segments, lines, parallel lines, angles)*	**Points**

6.	**Directions:** Describe the transformation shown..	**2**

Name:

Describe:

7.	**Directions:** Circle ALL that apply.	**2**

A. Rotation of 90 degrees clockwise about the origin.

B. Translation of 2 units right and 4 units up.

C. Reflection across the x-axis.

D. Translation of 4 units left and 2 units down.
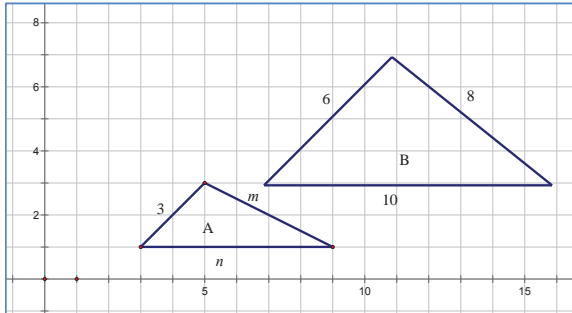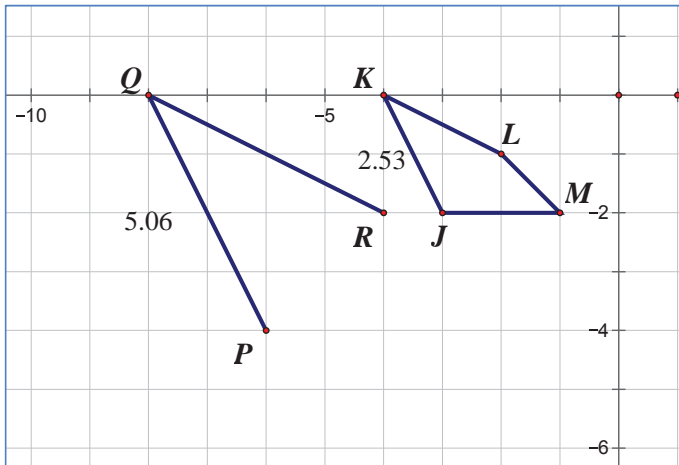
E. Translation of 4 units down and 2 units left.

8.	**Directions:** Circle ALL that apply.	**2**

A. Rotation of 90 degrees counterclockwise about the origin.

B. Translation 2 units down.

C. Rotation of 90 degrees clockwise about the origin and a

   translation 1 unit down.

D. Reflection across x-axis and translation down 1 unit.

E. Translation 1 unit up and rotation of 90 degrees

   clounterclockwise about the origin.

	8.G.1 & 8.G.3 **Learning Target**: *I can demonstrate rotations, reflections and translations (line segments, lines, parallel lines, angles)*	**Points**
9.	Suppose Triangle ABC is rotated counterclockwise 180 degrees about the origin. 1. Draw the rotation	**1**
10.	A rectangle has vertices at (8,0), (8,2), (4,0) and (4,2). **Directions:** <u>Draw</u> and <u>Label</u> each of the following translations. A. Translation of right 4 units and down 2 units B. Rotation of 180 degrees about (4, 2) C. Reflection over the line $x = 4$ Which image has a vertex at the origin A, B or C?_____	**4**

	8.G.2 & 8.G.4 **Learning Target**: *I can verify that two-dimensional figures are congruent using transformations and demonstrate the similarity of two-dimensional figures using transformations*	**Points**

State whether each of the following sets of figures are **Similar**, **Congruent** or **Neither**. If they are similar or congruent, explain the transformation required to create the image from A to B. If they are neither, explain why you think so.

11.		**Similar**, **Congruent** or **Neither:**	1
		Explain:	2

12.		**Similar**, **Congruent** or **Neither:**	1
		Explain:	2

13.		**Similar**, **Congruent** or **Neither:**	1
		Explain:	2

14.		**Similar**, **Congruent** or **Neither:**	1
		Explain:	2

	8.G.2 & 8.G.4 **Learning Target**: *I can verify that two-dimensional figures are congruent using transformations and demonstrate the similarity of two-dimensional figures using transformations*	**Points**

15.	Find the scale factor of the dilation of Figure A to Figure B and then find the side lengths of side *m* and side *n*.		
		Scale Factor:	1
		Side *m*:	1
		Side *n*:	1

16.	You want to create a quadrilateral PQRS that is similar to quadrilateral JKLM. What are the coordinates of S? What is the Scale Factor for this dilation?		
		Coordinates of S:	1
		Scale Factor:	1