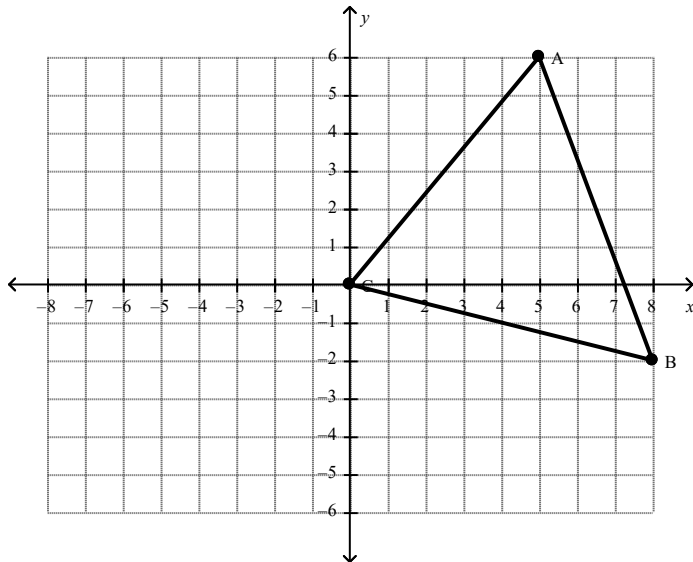


Transformations Test Review

Name: _____

Accelerated 7th Grade Math

- Which of the following words means the same size and same shape?
a. Similar b. compare c. congruent d. translate
- The police use maps to track their patrol cars. One police car radioed in their position to be (15, 21). One hour later they were at a location of (-10, 16).
 - Describe the translation in words.
 - Describe the translation using symbols.
- Explain the difference between a “pre-image” and an “image”.
- Complete the following transformations for each shape, by completing the following...
 - Identify the pre-image coordinates.
 - Find the image coordinates.
 - Draw the new shape and label the vertices. (A' or x'...)
 - Translate 4 DOWN.
 - Reflect over the y-axis.

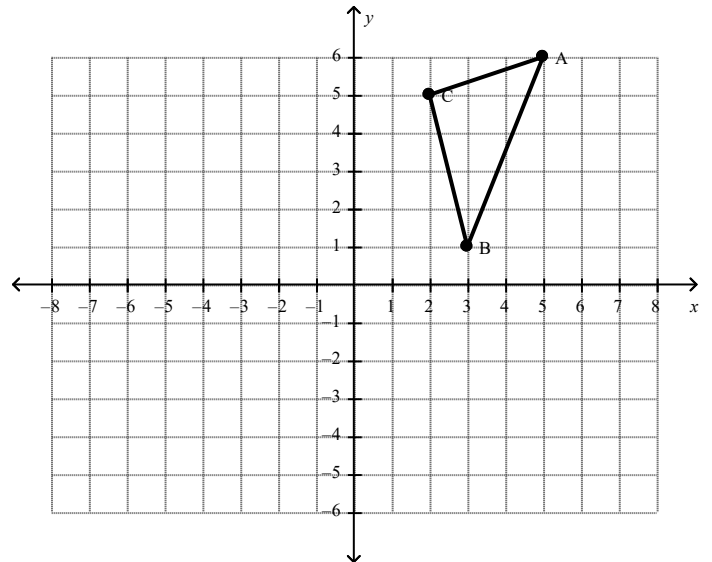


A _____ A' _____

B _____ B' _____

C _____ C' _____

Rule: _____



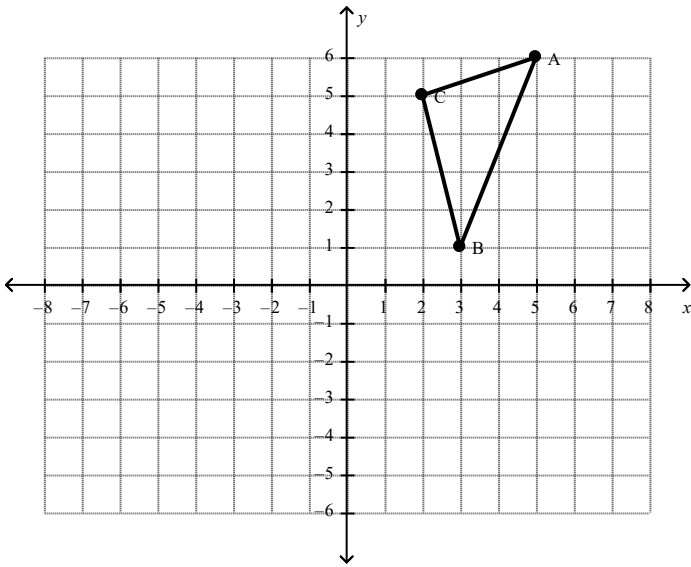
A _____ A' _____

B _____ B' _____

C _____ C' _____

Rule: _____

c. Rotate 270 degrees



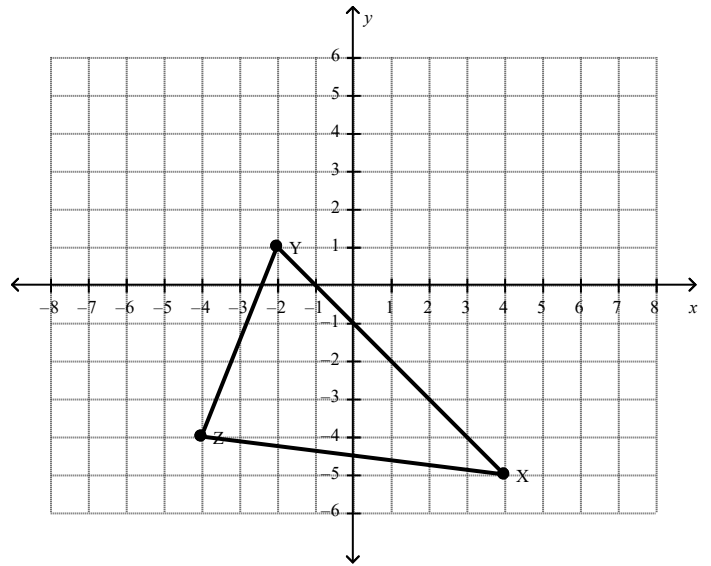
A _____ A' _____

B _____ B' _____

C _____ C' _____

Rule: _____

d. Translate 1 left and 5 up



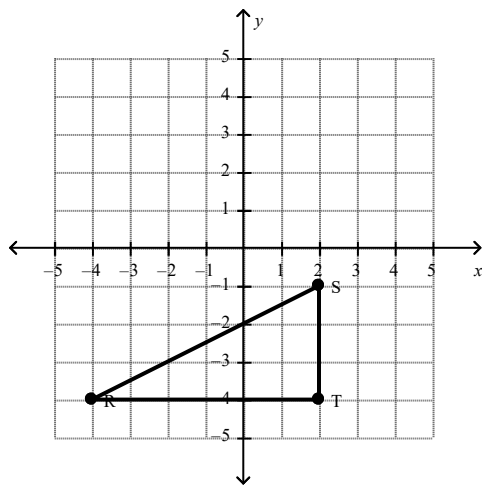
X _____ X' _____

Y _____ Y' _____

Z _____ Z' _____

Rule: _____

e. Rotate 180°



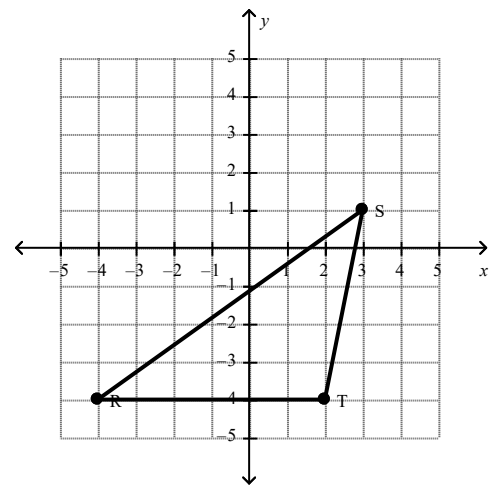
R _____ R' _____

S _____ S' _____

T _____ T' _____

Rule: _____

f. Reflect over the x-axis



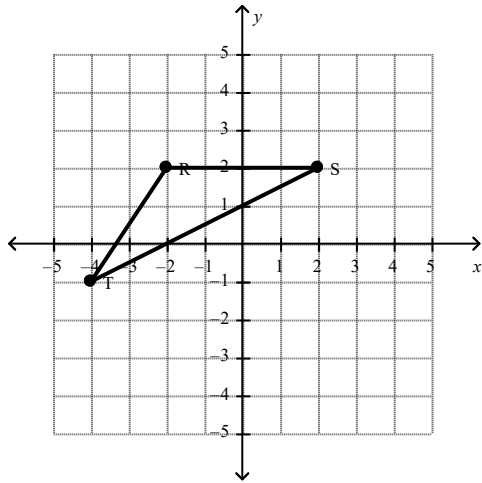
R _____ R' _____

S _____ S' _____

T _____ T' _____

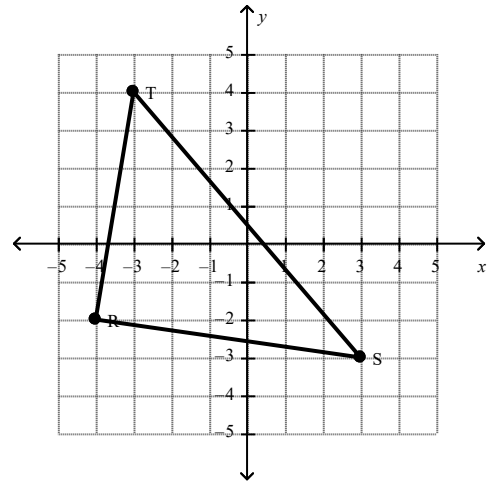
Rule: _____

g. Translate 3 up and 2 right



R _____ R' _____
 S _____ S' _____
 T _____ T' _____
 Rule: _____

h. Reflect over the y-axis.



R _____ R' _____
 S _____ S' _____
 T _____ T' _____
 Rule: _____

5. Draw all lines of symmetry for the following figures.

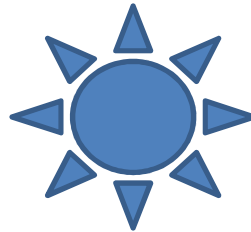
a.



b.



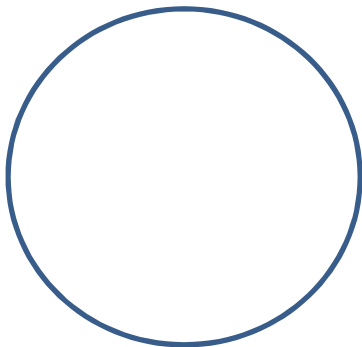
c.



d.



6. Create a design that will have reflectional symmetry. Choose the circle or the square to make your design.



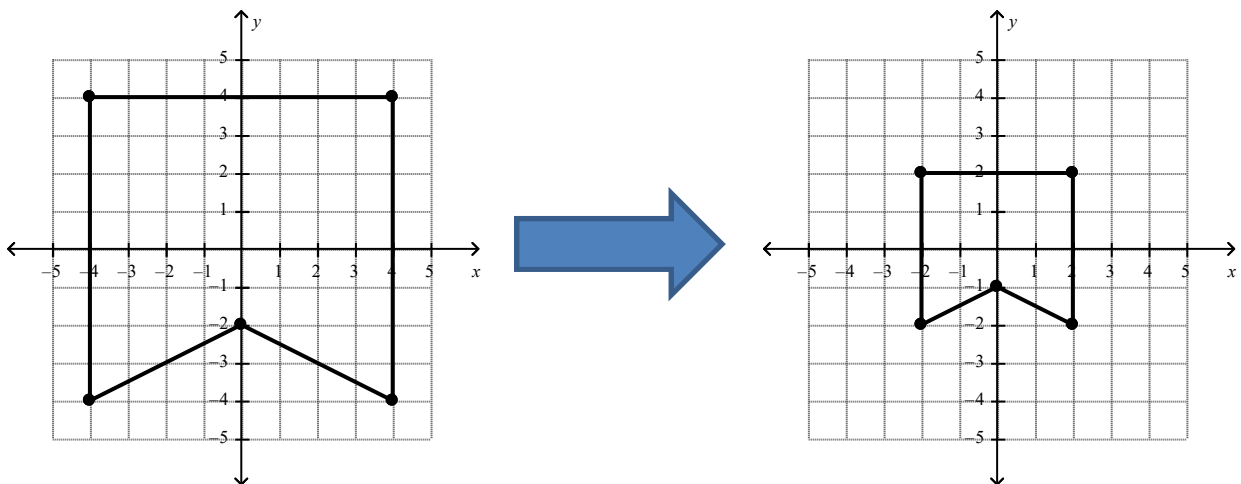
7. For each of the following pairs of points, identify the transformation. Was it a rotation (how much), was it a reflection (over which line), was it a translation (which way and how much)?

	Pre-Image	Image	Transformation
a.	(6,8)	(8, -6)	
b.	(-20, -3)	(-25, 0)	
c.	(-7, 100)	(-100, -7)	
d.	(3, -12)	(3, 12)	
e.	(0,0)	(-6, 15)	
f.	(14, -62)	(62, 14)	

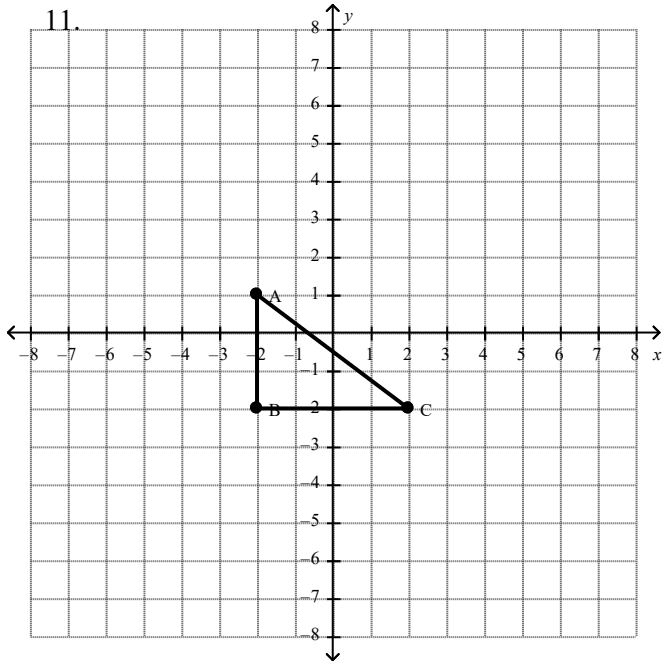
8. Fill in the missing image points.

	Pre-Image	Transformation	Image
a.	(6,8)	Translate right 7 and down 12	
b.	(-20, -3)	Rotate 270°	
c.	(-7, 100)	Reflection over the x-axis.	
d.	(3, -12)	Rotate 180°	
e.	(0,0)	Translate 4 left.	
f.	(14, -62)	Reflection over the y-axis.	

9. Find the scale factor of the dilation pictured below.



10. Consider the pre-image on the graph and the information below. Draw in the image and fill in the pre-image and the image coordinates.



Center of Dilation (0, 0)

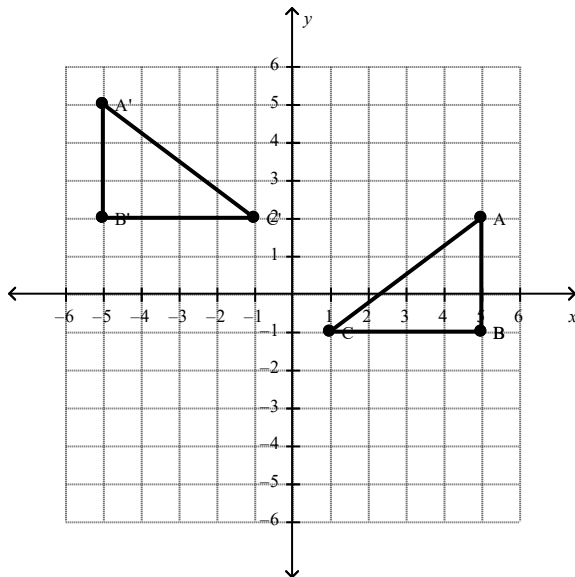
Scale Factor = 2

<u>Pre-Image</u>	<u>Image</u>
A	A'
B	B'
C	C'

Rule: _____

11. Describe the sequence of transformations illustrated in each graph below.

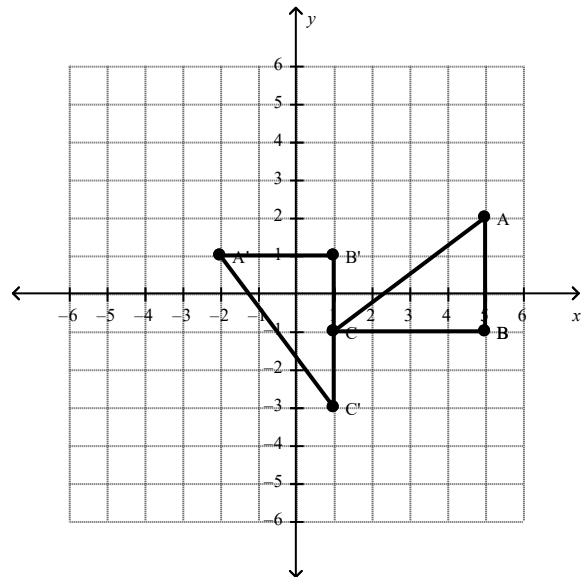
a.



1) _____

2) _____

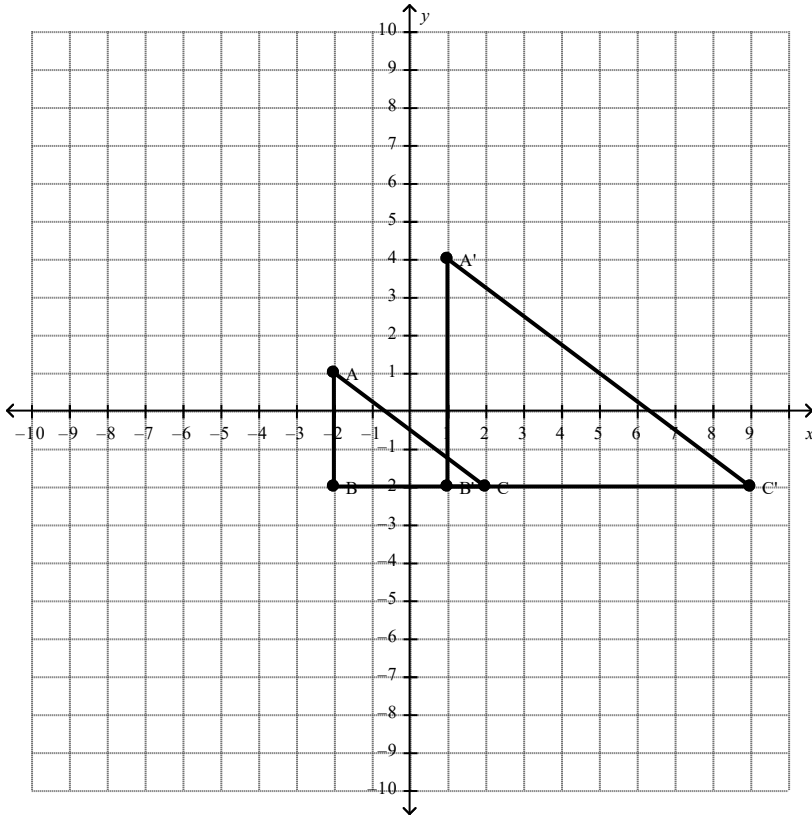
b.



1) _____

2) _____

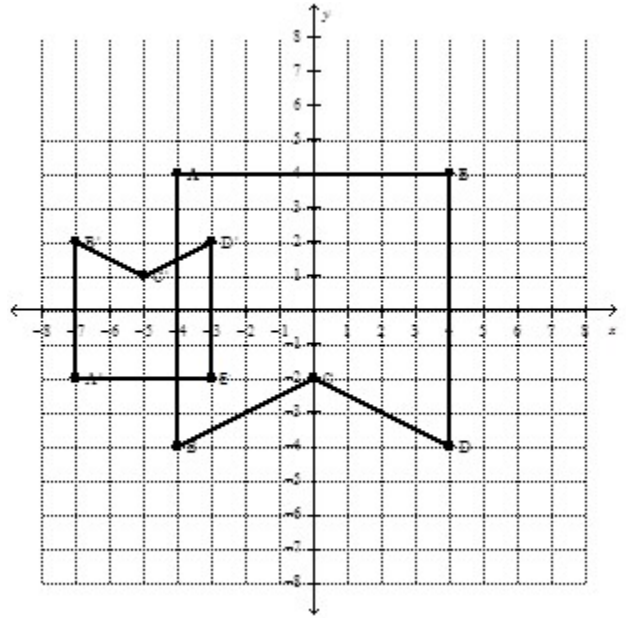
c.



1) _____

2) _____

d.



1) _____

2) _____

3) _____

Answers:

- 1) c
- 2) a. left 25, down 5
b. $(x - 25, y - 5)$
- 3) -
- 4) a. $(x, y - 4)$
b. $(-x, y)$
c. $(y, -x)$
d. $(x - 1, y + 5)$
e. $(-x, -y)$
f. $(x, -y)$
g. $(x + 2, y + 3)$
h. $(-x, y)$
- 5) -
- 6) -
- 7) a. rotate 270
b. translate $(x - 5, y + 3)$

- 8) c. rotate 90
d. reflect x-axis
e. translate $(x - 6, y + 15)$
f. rotate 90
a. 13, -4
b. -3, 20
c. -7, -100
d. -3, 12
e. -4, 0
f. -14, -62
- 9) $\frac{1}{2}$
- 10) $(2x, 2y)$
- 11) a. reflect y-axis, trans $(x, y + 3)$
b. rotate 90, trans $(x, y - 4)$
c. dilate $(2x, 2y)$, trans $(x + 5, y + 2)$
d. reflect x-axis, dilate $(0.5x, 0.5y)$, trans $(x - 5, y)$