GSE Geometry | Unit 1 - Transformations | EOC Review

Name: _____ Block: _____

Vocabulary: Translations, Dilations, Reflections, Rotations, and Isometry.

1) Translate the following points by the rule: $(x, y) \rightarrow (x+1, y-4)$

S (-5, 2)→

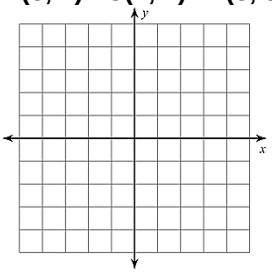
Y (-4, 5)→

R (-1, 1)→

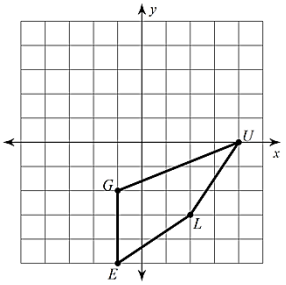
A (-4, -2)→

2) Translation: (x, y) → (x – 2, y – 6)

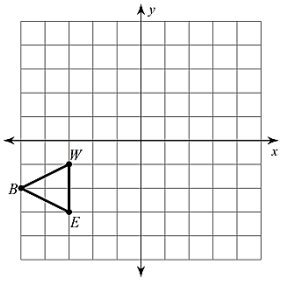
W(3, 2) C(2, 4) T(3, 5) Z(5,2)



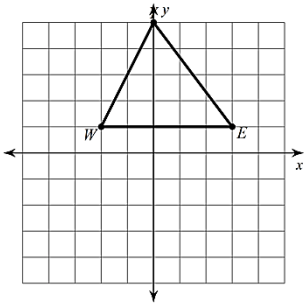
3) Reflection over y = x



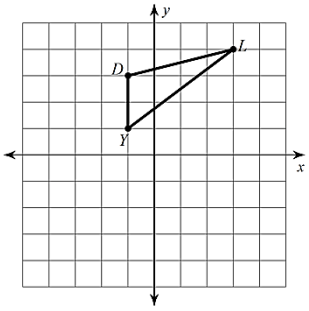
4) Reflection over y = -3



5) Rotate the figure 90° CW



6) Rotate the figure 90° CCW



7) Find the coordinates of the new vertices of the image that has been dilated by a factor of 5.

S(-5, 2)→

Y (-4, 5)→

R (-1, 1)→

A (-4, -2)→

8) Find the coordinates of the new vertices of the image that has been dilated by a factor of 1/2.

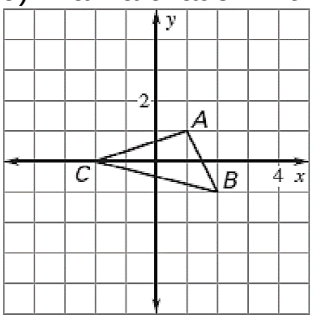
W(3, 2)→

C(2, 4)→

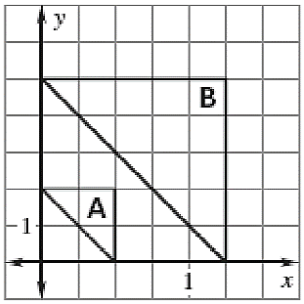
T (3, 5)→

Z (5, 2)→

9) Draw a dilation with k = 2



10) Determine the scale factor, k = __



11) Given the points

M (-3, 1) S (5, -2)

Translate: (x – 3, y + 2)

Reflect: y = x

M' →

M'' →

S' →

S'' →

12) Given the points

K (0, -4) P (-6, -3) R (1, 2)

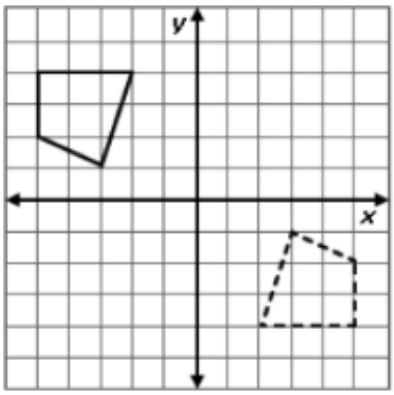
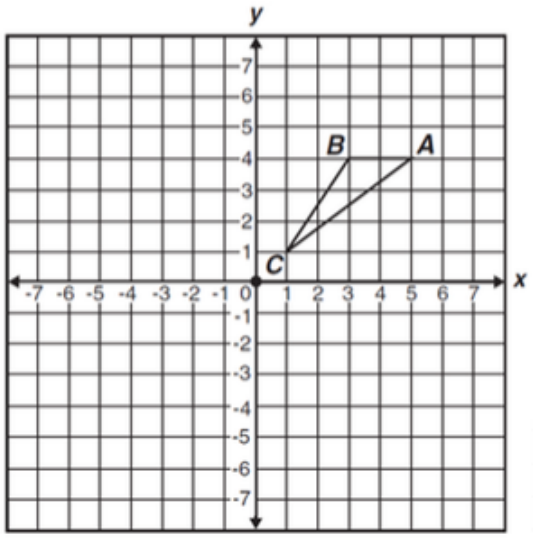
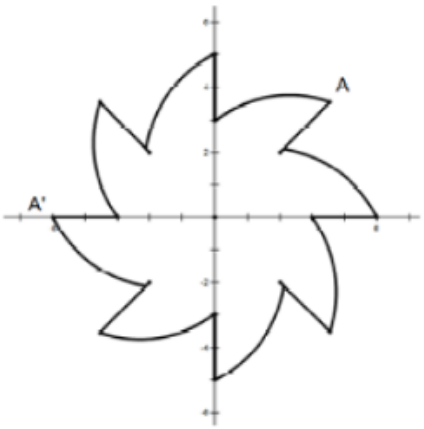
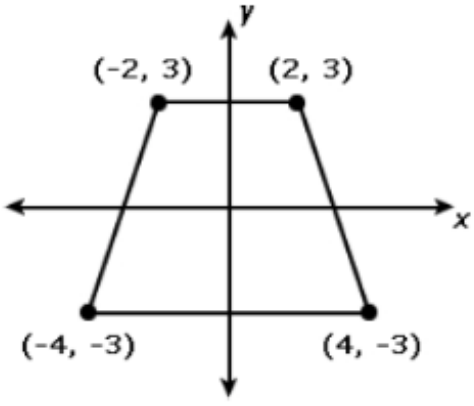
Reflect: over the x-axis

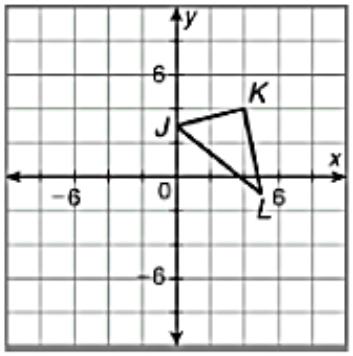
Rotate: 270 CCW

K' → K'' →

P' → P'' →

R' → R'' →

	Answers
1) Which transformation maps the solid figure onto the dashed figure? A. rotation 180 about the origin B. translation to the right and down C. reflection across the x-axis D. reflection across the y-axis 	1) _____
2) If triangle ABC is rotated 180 degrees about the origin, what are the coordinates of A'? A. (-5,-4) B. (-5,4) C. (-4,5) D. (-4,-5) 	2) _____
3) Determine the angle of rotation for A to map onto A'? A. 45 B. 90 C. 135 D. 180 	3) _____
4) Which transformation will place the trapezoid onto itself? A. counterclockwise rotation about the origin by 90 B. rotation about the origin by 180 C. reflection across the x-axis D. reflection across the y-axis 	4) _____

5) ΔJKL is rotated 90 about the origin and then translated using $(x, y) \rightarrow (x - 8, y + 5)$. What are the coordiantes of the final image of L? A. (-7,10) B. (-7,0) C. (-9,10) D. (-9,0) 	Answers 5) _____
6) Which figure has 90 rotational symmetry? A. square B. regular hexagon C. regular pentagon D. equilateral triangle	6) _____
7) Point P is located at (4,8) on a coordinate plane. Point P will be relfected over y = x. What will bee the coordiantes of the image of point P? A. (28,4) B. 24,8) C. (4,28) D. (8,4)	7) _____
8) Point F' is the image when point F is reflected over the line $x = -2$ and then over the line $y = 3$. The location of F' is (3,7). Which of the following is the location of point F? A. (-7,-1) B. (-7,7) C. (1,5) D. (1,7)	8) _____
9) A triangle has vertices at A(-3,-1), B(-6,-5), C(-1,-4). Which tranformation would produce an image with vertices A'(3,-1), B'(6,-5), C'(1,-4)? A. A relfection over the x-axis B. A relfection over the y-axis C. A rotation 99 clockwise D. A rotation 90 counterclockwise	9) _____
10) The vertices of ΔJKL have coordinates J(5,1), K(-2,-3), and L(-4,1). Under which tranformation is the image $\Delta J'K'L'$ NOT congrunet to ΔJKL? A. A translation of two units to the right and two units down B. A counterclockwise rotation of 180 degrees aound the origin C. A reflection over the x-axis D. A dilation with a scale factor of 2 centered at the origin	10) _____