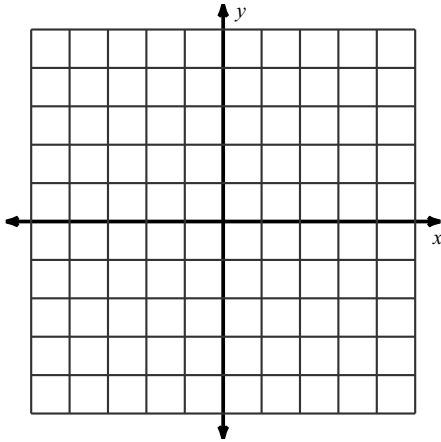


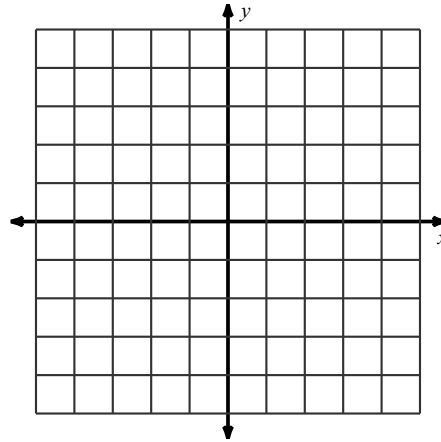
6.1 - PRACTICE - ROTATIONS

Graph the image of the figure using the transformation given.

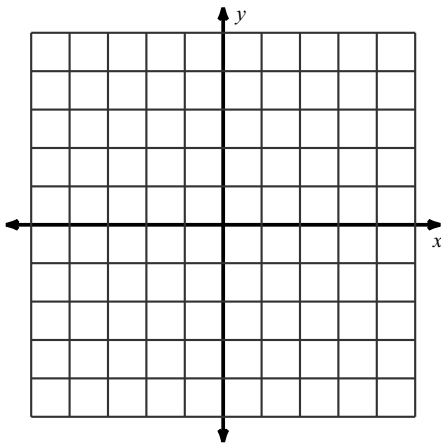
- 1) rotation 180° about the origin
 $K(-4, -4), L(-2, -2), M(-1, -5)$



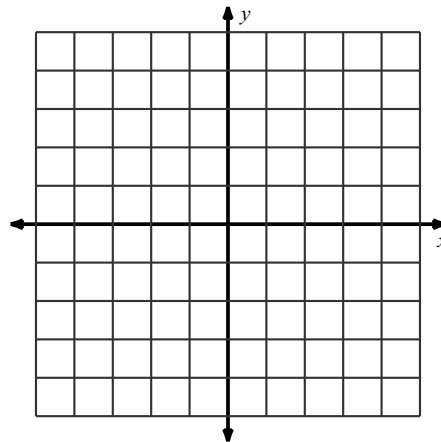
- 2) rotation 180° about the origin
 $Q(0, 2), R(3, 3), S(3, -1)$



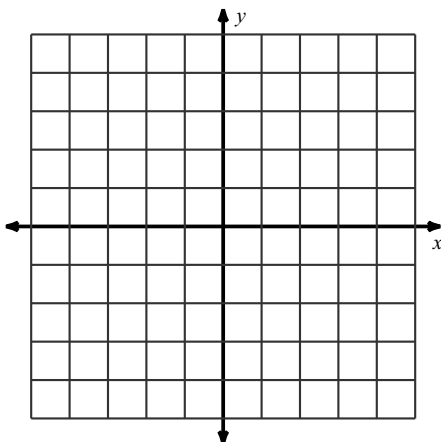
- 3) rotation 90° counterclockwise about the origin
 $Q(1, 1), R(1, 3), S(3, 3)$



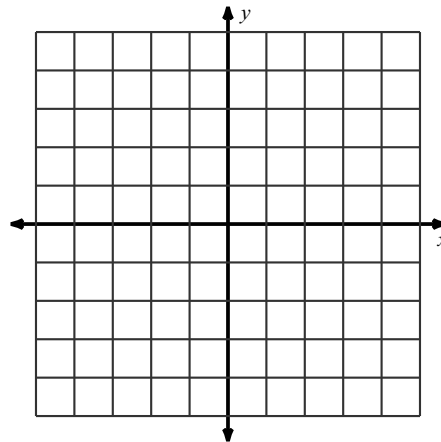
- 4) rotation 90° clockwise about the origin
 $C(-4, 0), D(-3, 3), E(-3, 0)$



- 5) rotation 90° clockwise about the origin
 $C(-5, -4), D(-4, -1), E(-3, -4)$

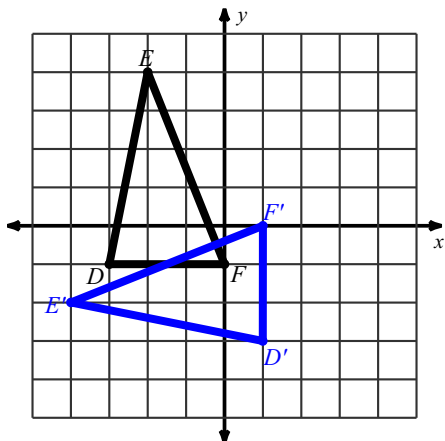


- 6) rotation 90° counterclockwise about the origin
 $Q(2, -4), R(1, 1), S(5, -1)$

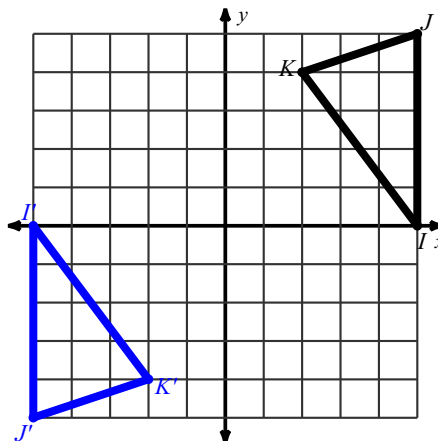


Write a rule to describe each transformation.

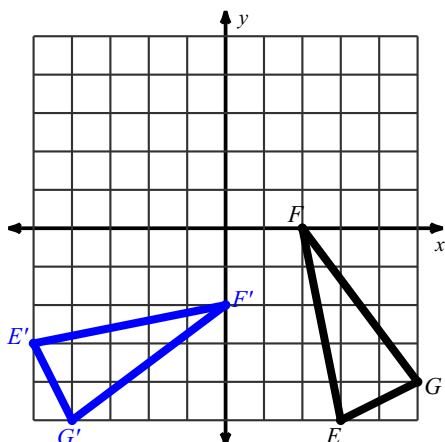
7)



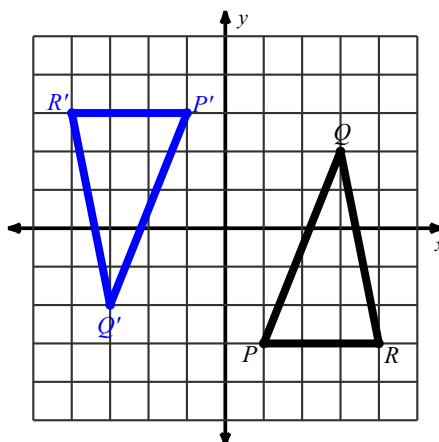
8)



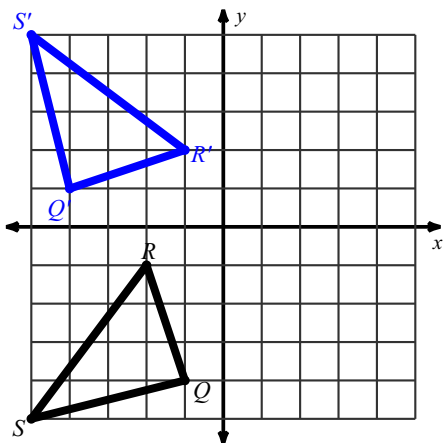
9)



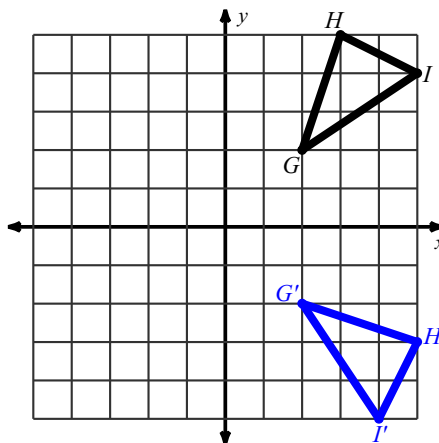
10)



11)



12)



Find the coordinates of the vertices of each figure after the given transformation.

13) rotation 180° about the origin
 $W(3, -5)$

14) rotation 90° clockwise about the origin
 $G(-1, 0)$

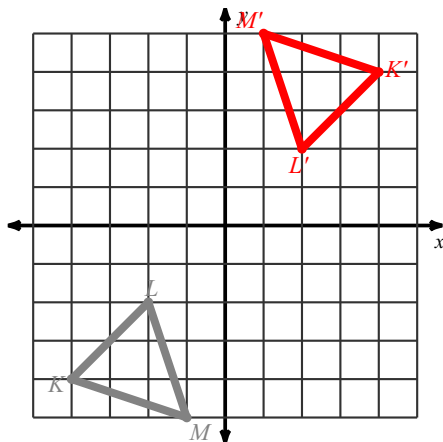
15) rotation 90° counterclockwise about the origin
 $W(0, 3)$

16) rotation 180° about the origin
 $T(4, -2)$

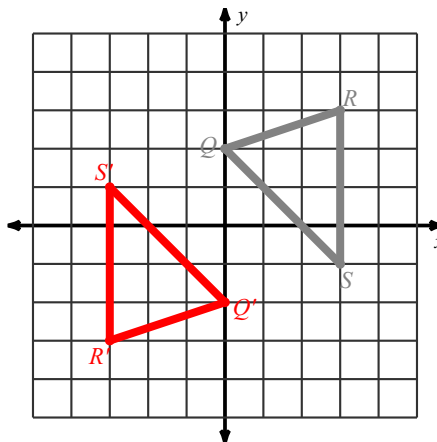
6.1 - PRACTICE - ROTATIONS

Graph the image of the figure using the transformation given.

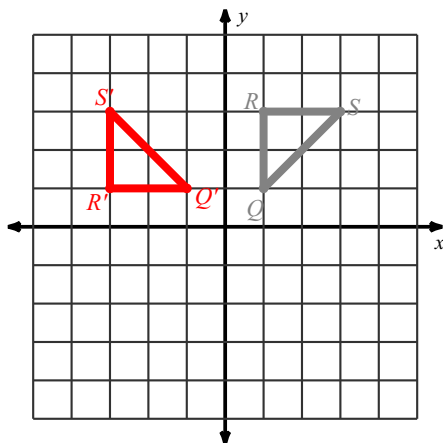
- 1) rotation 180° about the origin
 $K(-4, -4), L(-2, -2), M(-1, -5)$



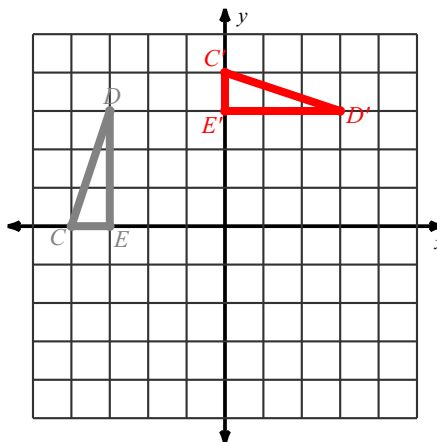
- 2) rotation 180° about the origin
 $Q(0, 2), R(3, 3), S(3, -1)$



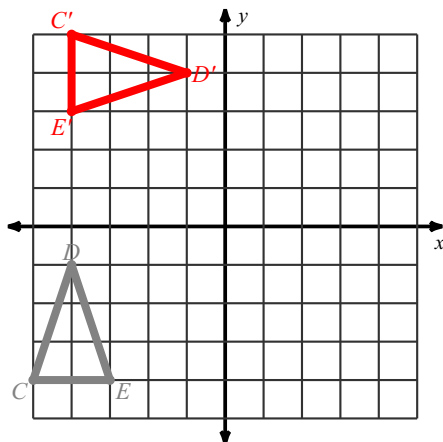
- 3) rotation 90° counterclockwise about the origin
 $Q(1, 1), R(1, 3), S(3, 3)$



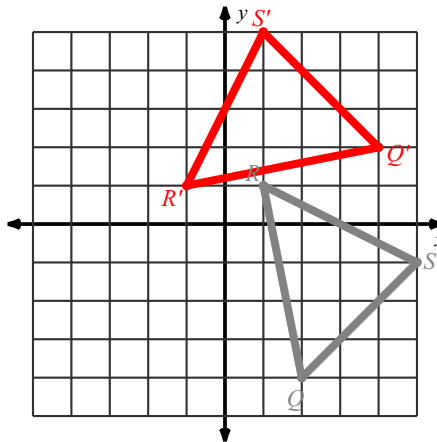
- 4) rotation 90° clockwise about the origin
 $C(-4, 0), D(-3, 3), E(-3, 0)$



- 5) rotation 90° clockwise about the origin
 $C(-5, -4), D(-4, -1), E(-3, -4)$

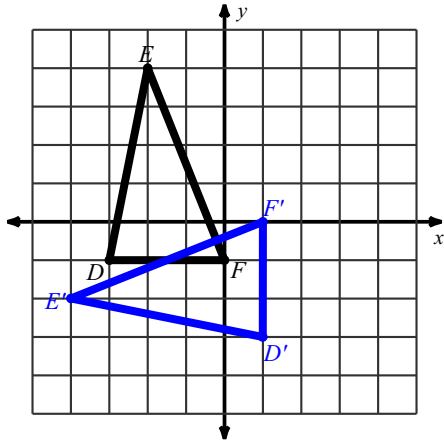


- 6) rotation 90° counterclockwise about the origin
 $Q(2, -4), R(1, 1), S(5, -1)$

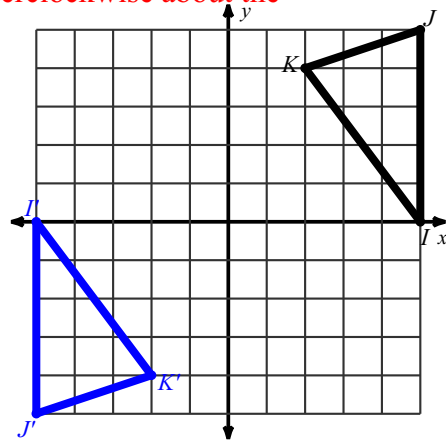


Write a rule to describe each transformation.

7)

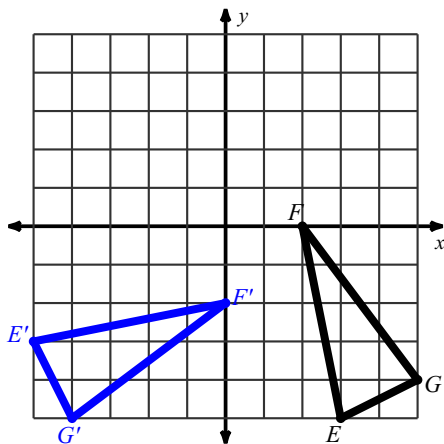


rotation 90° counterclockwise about the origin



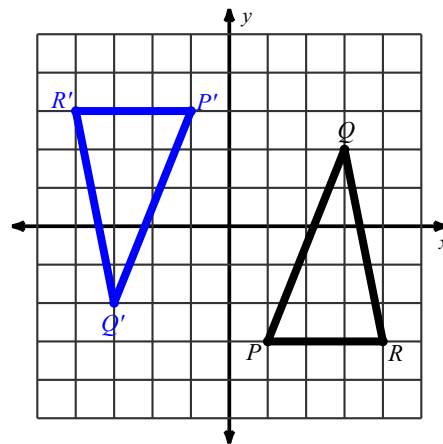
rotation 180° about the origin

9)



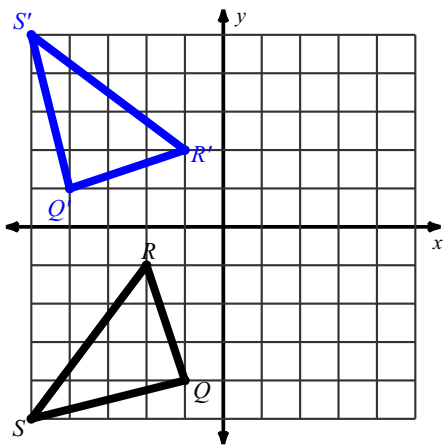
rotation 90° clockwise about the origin

10)



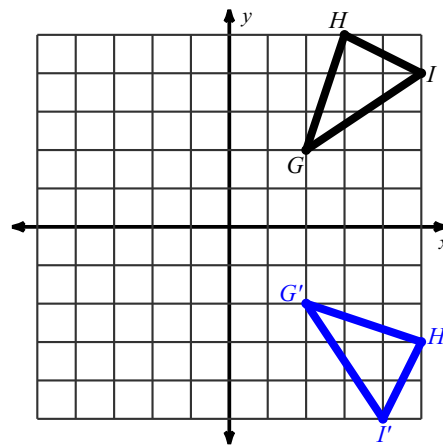
rotation 180° about the origin

11)



rotation 90° clockwise about the origin

12)



rotation 90° clockwise about the origin

Find the coordinates of the vertices of each figure after the given transformation.

13) rotation 180° about the origin

$W(3, -5)$
 $W'(-3, 5)$

14) rotation 90° clockwise about the origin

$G(-1, 0)$
 $G'(0, 1)$

15) rotation 90° counterclockwise about the origin

$W(0, 3)$
 $W'(-3, 0)$

16) rotation 180° about the origin

$T(4, -2)$
 $T'(-4, 2)$