Directions: Using the rule provided, describe the transformation that has occurred.

1)
$$(x, y) \rightarrow (y, x)$$

2)
$$(x, y) \rightarrow (-y, x)$$

3)
$$(x, y) \rightarrow (x - 3, y)$$

4)
$$(x, y) \rightarrow (x, -y)$$

Directions: Write the rule to represent the transformation.

5) Rotate 90° CW about the origin

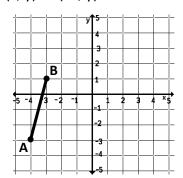
6) Translate 5 units left and 3 units up

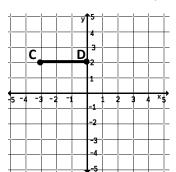
7) Reflect over y = -x

8) Rotate 180° CCW about the origin

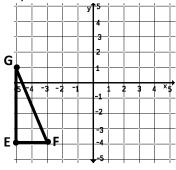
Directions: Graph the transformation using the given information.

9)
$$(x, y) \rightarrow (-x, y)$$





11) Reflect over
$$x = -1$$



Directions: Solve each problem.

12) If Z(3, -4), what is Z' after it has been reflected over the x-axis and then moved 5 units to the right.

13) If R'(0, 5), what is R if the following rule was used to produce the image: $(x, y) \rightarrow (y, -x)$?

14) If J(3, 1) is reflected over y = x, which other transformation would have the same coordinate as J'?

A) M(1, 3) is transformed using the rule $(x, y) \rightarrow (-x, -y)$.

B) H(1, -3) is reflected over the y-axis.

C) W(-1, 3) is rotated 270° CCW about the origin.

D) E(4, -5) is translated 3 units left and 8 units up.

Directions:

1) Log into usatestprep.com

2) Complete the following benchmark: JOJOWEZUTA