

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

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

- 1) rotation
- $180^\circ$
- about the origin

$B(-1, -5)$

$B'(1, 5)$

- 2) translation: 2 units right and 5 units up

$X(-1, 0)$

$X'(1, 5)$

- 3) translation: 2 units up

$H(-1, -5)$

$H'(-1, -3)$

- 4) reflection across
- $y = -x$

$J(4, 3)$

$J'(-3, -4)$

- 5) rotation
- $90^\circ$
- clockwise about the origin

$J(0, -1)$

$J'(-1, 0)$

- 6) translation: 1 unit left and 7 units up

$G(2, -5)$

$G'(1, 2)$

- 7) reflection across
- $x = -3$

$T(-2, -3)$

$T'(-4, -3)$

- 8) rotation
- $180^\circ$
- about the origin

$K(-1, 4)$

$K'(1, -4)$

- 9) translation: 2 units right and 4 units up

$C(2, -5)$

$C'(4, -1)$

- 10) reflection across
- $y = x$

$T(-3, 0)$

$T'(0, -3)$

- 11) rotation
- $90^\circ$
- counterclockwise about the origin

$H(5, 4)$

$H'(-4, 5)$

- 12) translation:
- $(x, y) \rightarrow (x - 9, y + 7)$

$K(5, -4)$

$K'(-4, 3)$

- 13) reflection across the x-axis

$A(1, -2)$

$A'(1, 2)$

- 14) reflection across
- $y = x$

$E(2, -3)$

$E'(-3, 2)$

- 15) rotation
- $180^\circ$
- about the origin

$C(-4, 1)$

$C'(4, -1)$

- 16) translation:
- $(x, y) \rightarrow (x, y - 3)$

$D(3, -2)$

$D'(3, -5)$

- 17) translation:
- $(x, y) \rightarrow (x + 9, y - 3)$

$K(-5, 1)$

$K'(4, -2)$

- 18) rotation
- $90^\circ$
- counterclockwise about the origin

$T(0, -5)$

$T'(5, 0)$

- 19) rotation
- $180^\circ$
- about the origin

$K(1, -1)$

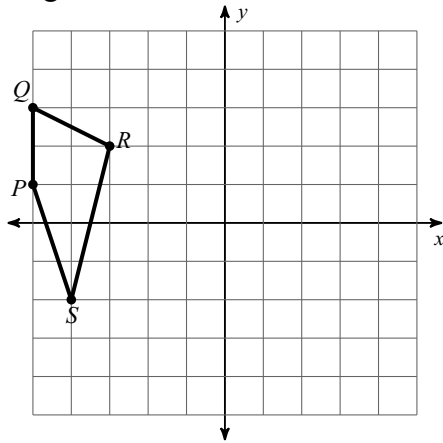
$K'(-1, 1)$

- 20) reflection across
- $y = -x$

$W(-3, -1)$

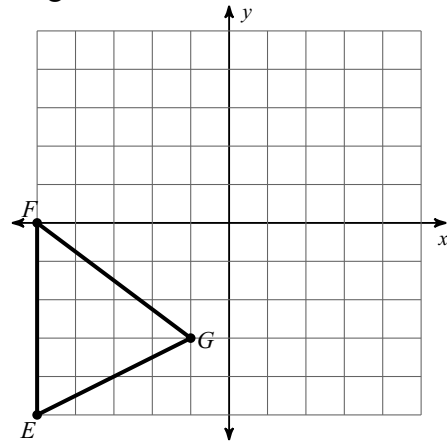
$W'(1, 3)$

21) rotation  $90^\circ$  counterclockwise about the origin



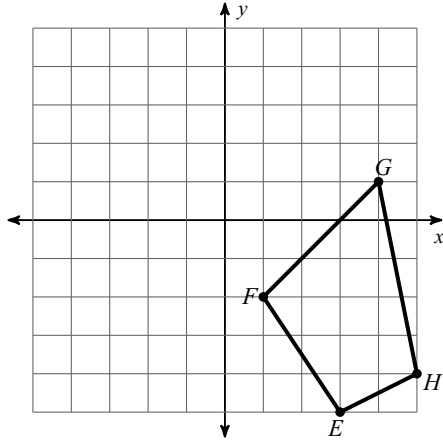
$$P'(-1, -5), Q'(-3, -5), R'(-2, -3), S'(2, -4)$$

22) rotation  $90^\circ$  counterclockwise about the origin



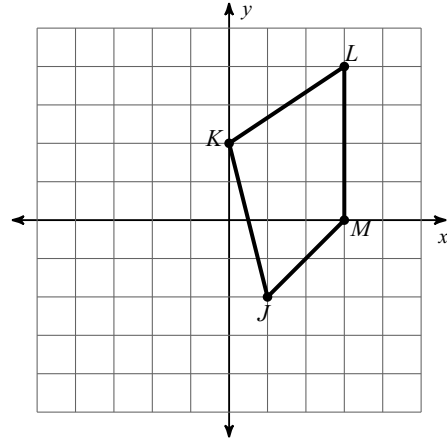
$$E'(5, -5), F'(0, -5), G'(3, -1)$$

23) translation:  $(x, y) \rightarrow (x - 2, y)$



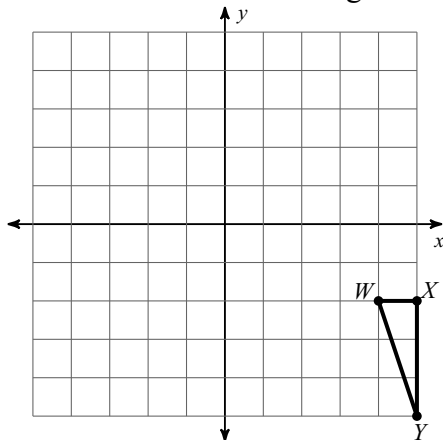
$$E'(1, -5), F'(-1, -2), G'(2, 1), H'(3, -4)$$

24) translation:  $(x, y) \rightarrow (x - 5, y + 1)$



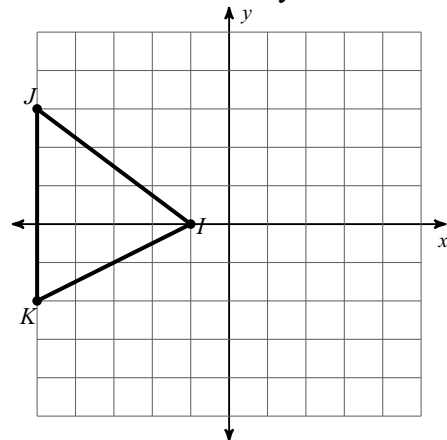
$$J'(-4, -1), K'(-5, 3), L'(-2, 5), M'(-2, 1)$$

25) rotation  $180^\circ$  about the origin



$$W'(-4, 2), X'(-5, 2), Y'(-5, 5)$$

26) reflection across the y-axis



$$J'(5, 3), I'(1, 0), K'(5, -2)$$