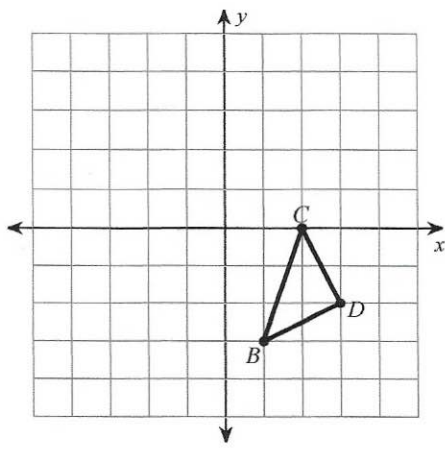


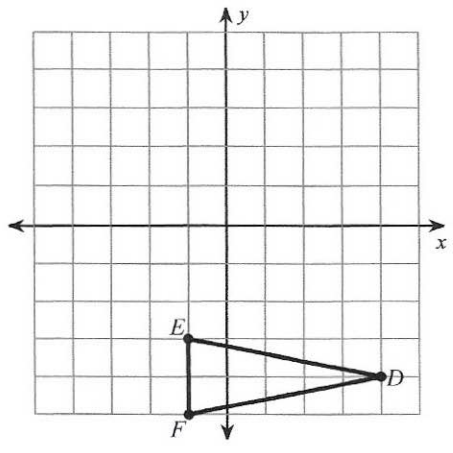
Unit 6 review worksheet; transformations

Graph the image of the figure using the transformation given.

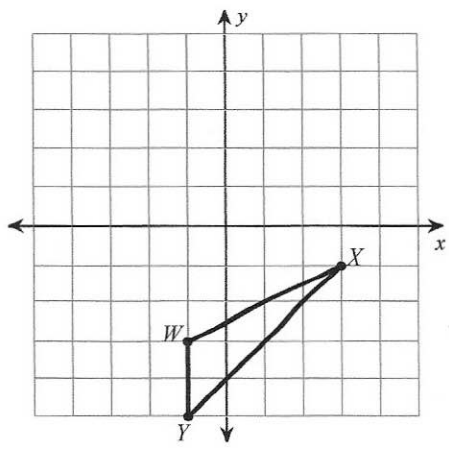
1) rotation 270° counterclockwise about the origin



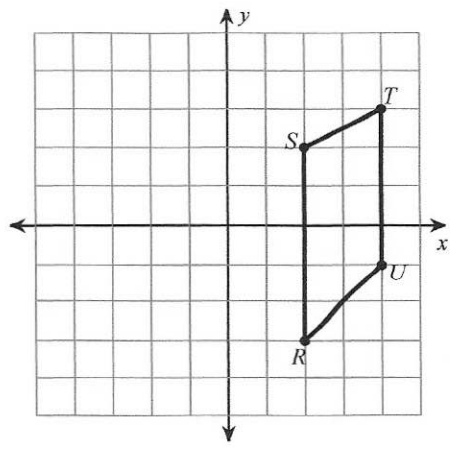
2) rotation 90° clockwise about the origin



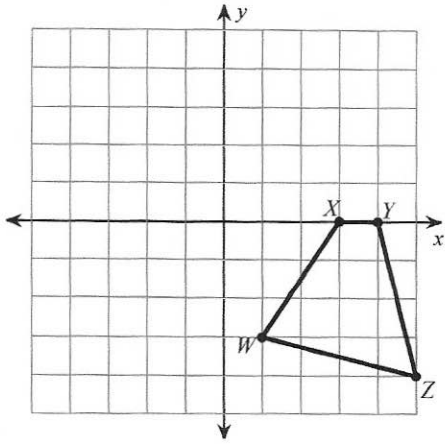
3) rotation 90° counterclockwise about the origin



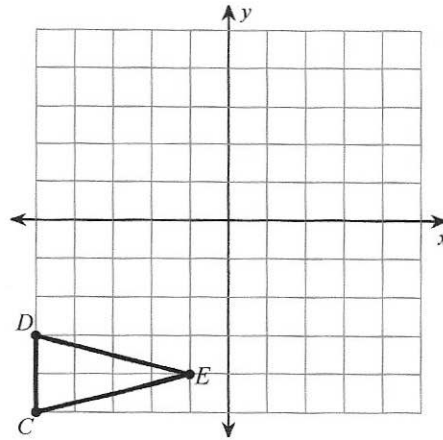
4) rotation 90° counterclockwise about the origin



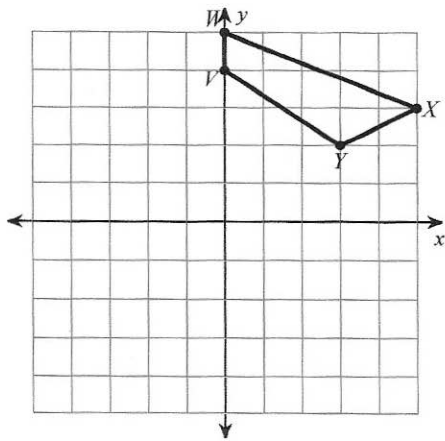
5) translation: 5 units left and 1 unit down



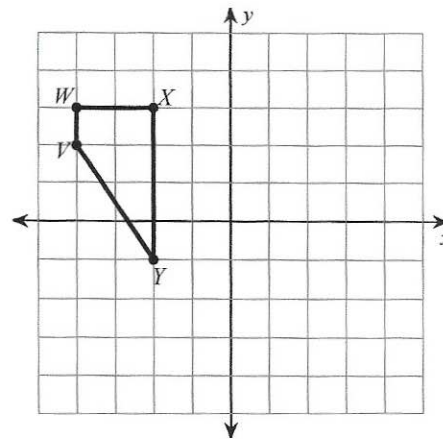
6) rotation 90° clockwise about the origin



7) rotation 270° counterclockwise about the origin

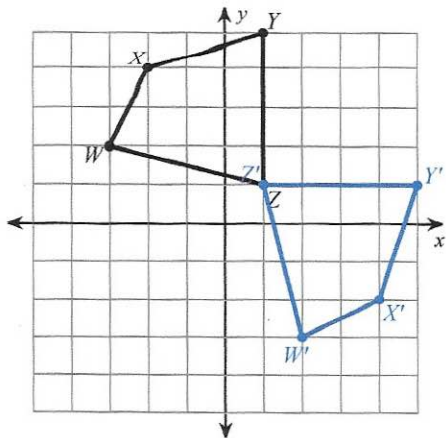


8) translation: 1 unit left and 2 units down

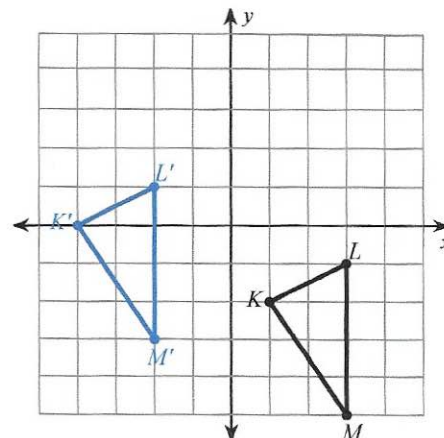


Write a rule to describe each transformation.

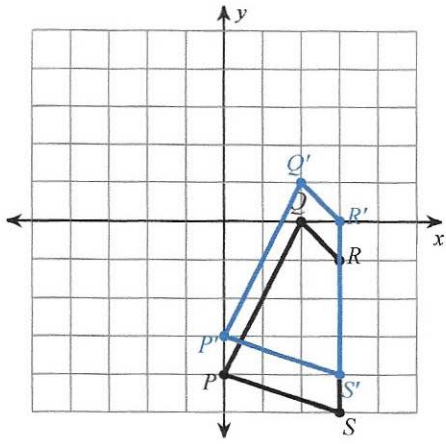
9)



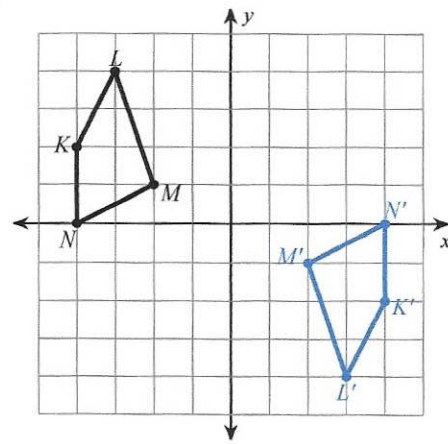
10)



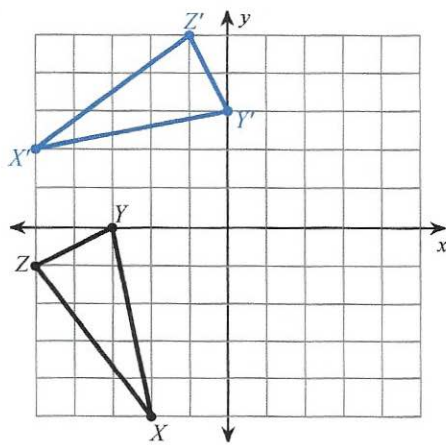
11)



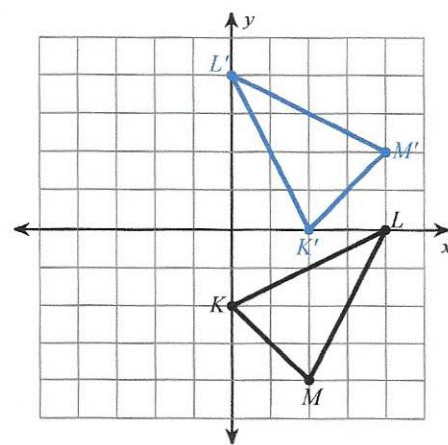
12)



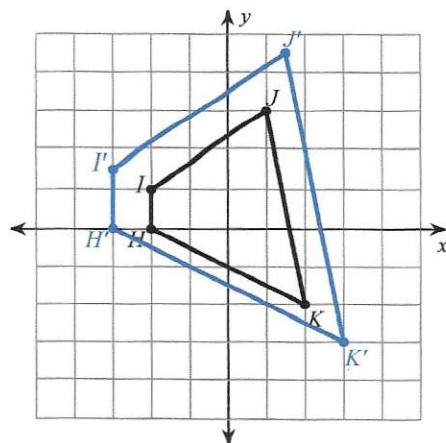
13)



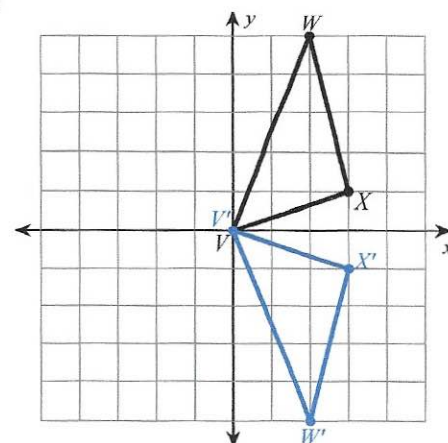
14)



15)



16)



$$17) K(3, 1), L(2, 4), M(3, 4), N(4, 0)$$

to

$$K'(1, -3), L'(4, -2), M'(4, -3), N'(0, -4)$$

$$18) L(1, 1), K(3, 3), J(4, 3), I(1, 0)$$

to

$$L'(1, -3), K'(3, -1), J'(4, -1), I'(1, -4)$$

$$19) H(2, -5), G(2, -3), F(3, -3)$$

to

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

$$20) C(-4, -2), D(-5, 2), E(-4, 2), F(-3, 3)$$

to

$$D'(-2, 5), E'(-2, 4), F'(-3, 3), C'(2, 4)$$

$$21) C(-3, -4), D(-2, 1), E(-1, 1), F(-1, -4)$$

to

$$C'(-4, -5), D'(-3, 0), E'(-2, 0), F'(-2, -5)$$

$$22) P(-1, 0), Q(-1, 1), R(0, 1), S(2, 0)$$

to

$$P'(-1.5, 0), Q'(-1.5, 1.5), R'(0, 1.5), S'(3, 0)$$

$$23) E(-5, 3), F(0, 5), G(0, 3)$$

to

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

$$24) T(3, 0), U(5, 3), V(5, 0)$$

to

$$T'(0, 3), U'(-3, 5), V'(0, 5)$$

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

25) reflection across the x-axis
 $H(-5, -5), I(-4, -3), J(-3, -3), K(0, -5)$

26) dilation of 1.5
 $P(-2, -1), Q(0, 3), R(3, 0), S(-2, -2)$

27) rotation 180° about the origin
 $G(-3, 3), F(0, 4), E(-3, 1)$

28) translation: 2 units right and 6 units up
 $I(-5, -3), J(-5, -2), K(-3, -3)$

29) reflection across $y = x$
 $B(0, 0), C(1, 3), D(4, 0), E(1, -2)$

30) rotation 270° counterclockwise about the origin
 $E(-4, 0), F(-4, 3), G(-3, 3), H(-3, -1)$

31) rotation 180° about the origin
 $Q(-4, 2), R(-1, 3), S(-1, 1)$

32) rotation 180° about the origin
 $W(-1, 0), V(1, 5), U(3, 1)$