Name_____

1-2 Reflections and Rotations

Date_____ Period_____

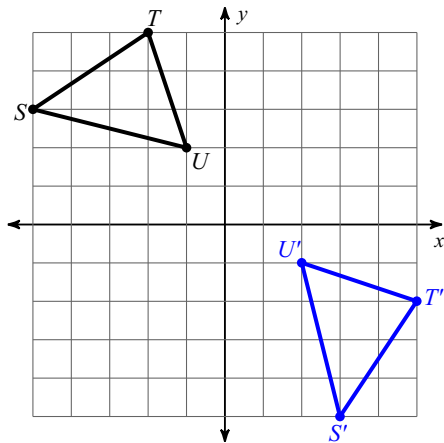**Draw the line of reflection. Write the rule that describes the transformation.**
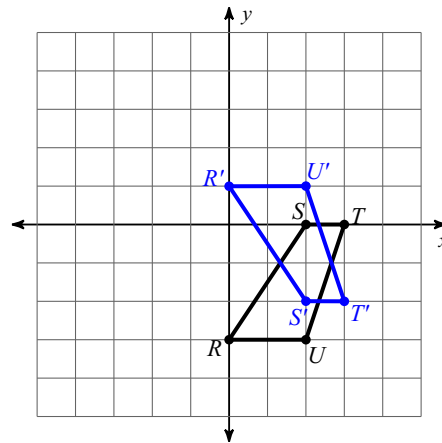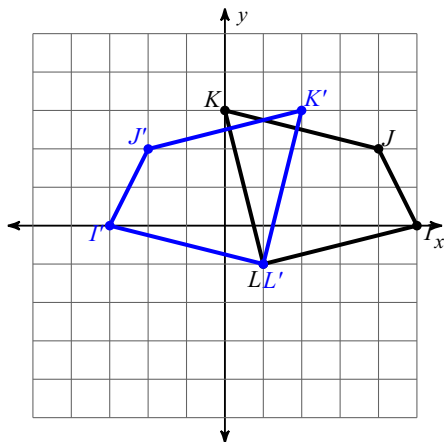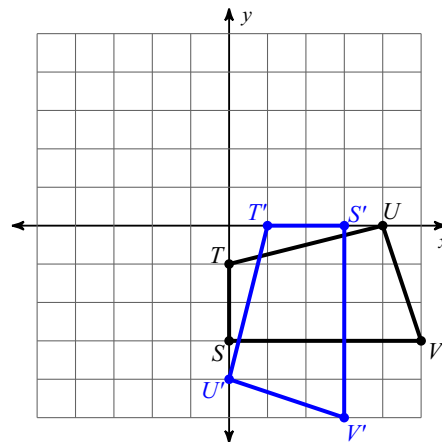
1)
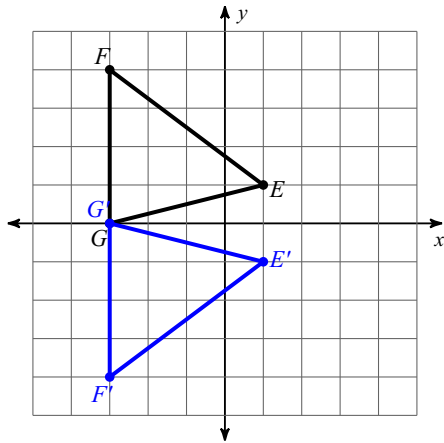
2)
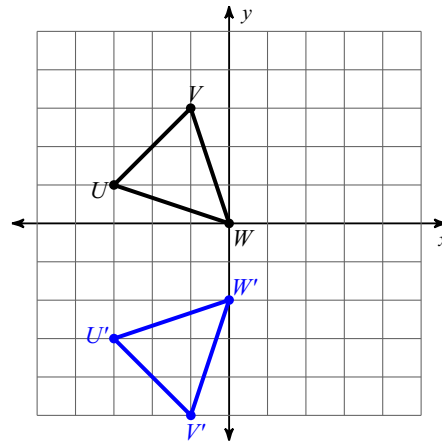
3)

4)

5)

6)

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

7) reflection across the x-axis
$P(-2, 5)$

8) reflection across $x = -1$
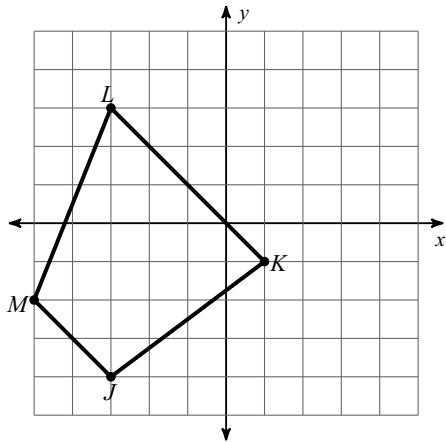$M(0, -4)$

9) reflection across $y = -2$
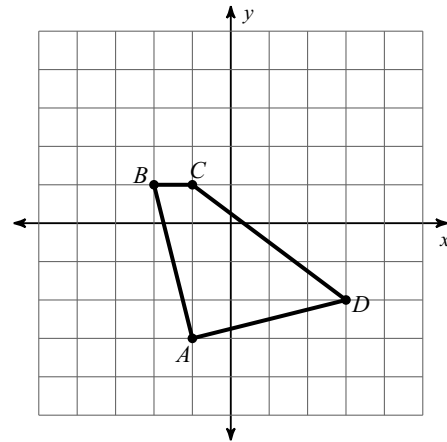$Y(-5, -4)$

10) reflection across $y = x$
$R(-5, -4)$

Graph the image of the figure using the transformation given. (Draw the line of reflection)
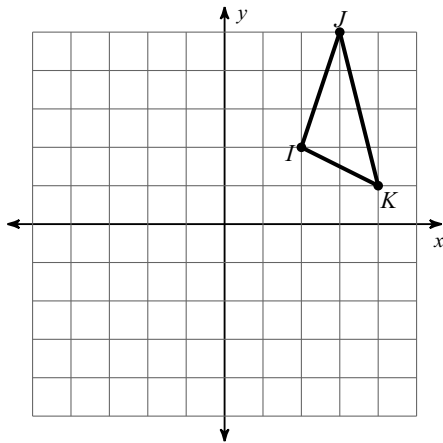
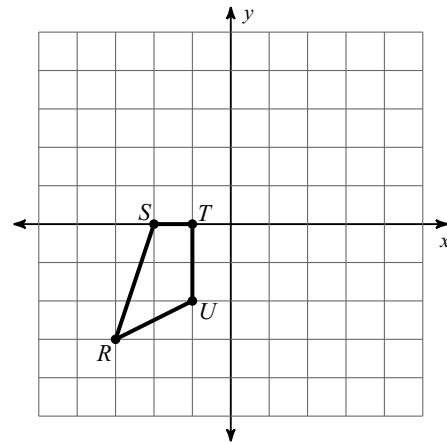11) reflection across the x-axis

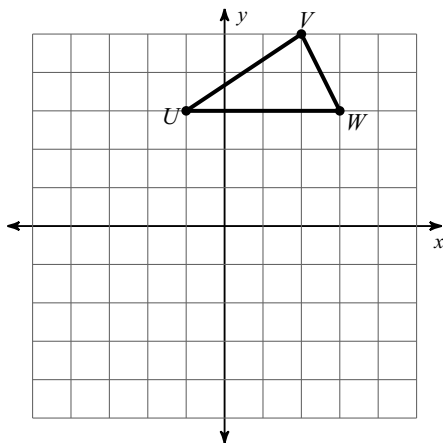12) reflection across the y-axis

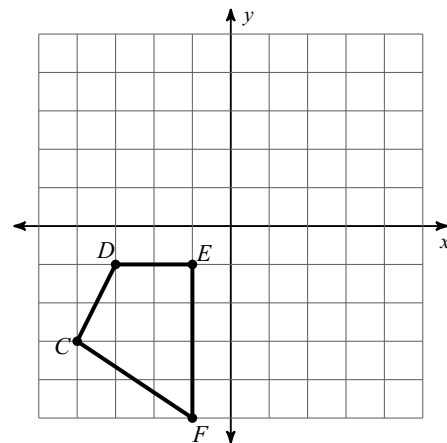13) reflection across $y = 2$

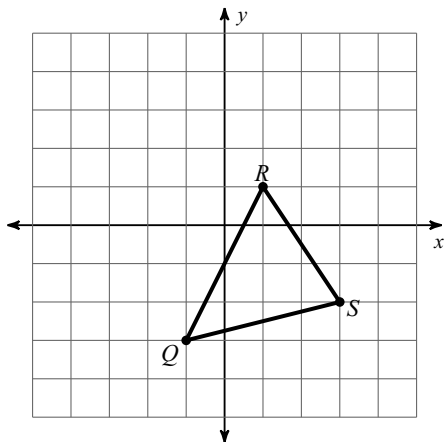14) reflection across $x = 1$

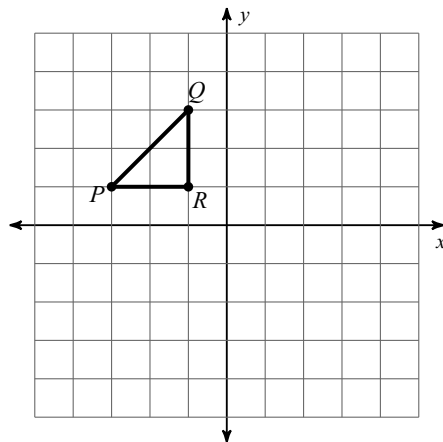15) reflection across $y = x$

16) reflection across $y = -x$

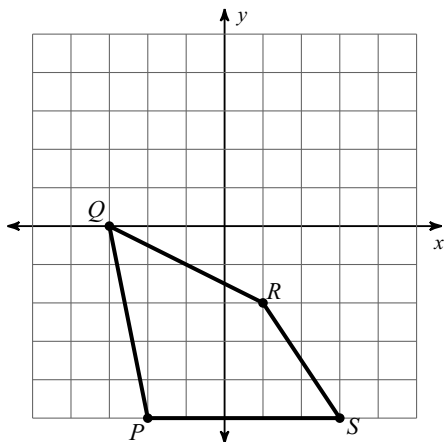**Graph the image of the figure using the transformation given.**

17) rotation 180° about the origin
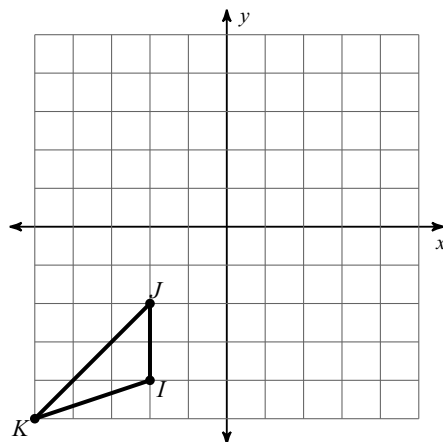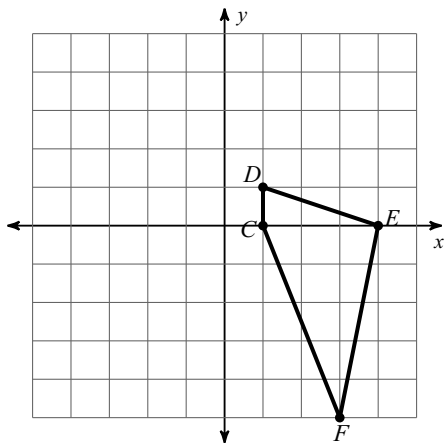

18) rotation 90° clockwise about the origin

19) rotation 90° clockwise about the origin
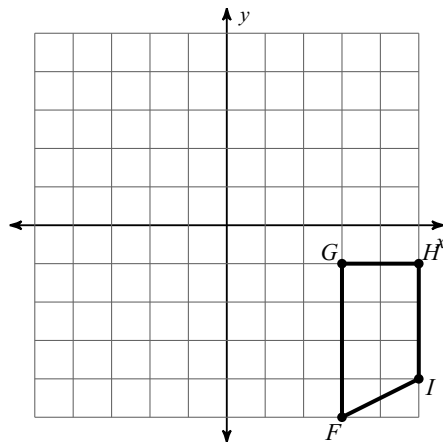

20) rotation 90° counterclockwise about the origin

21) rotation 180° about the origin

22) rotation 90° counterclockwise about the origin

Find the coordinates of the vertices of each figure after the given transformation.
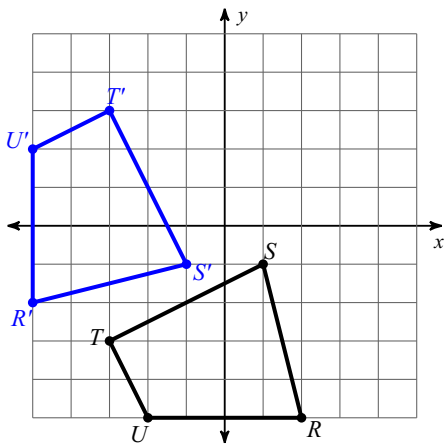
23) rotation 180° about the origin
$K(-2, 3)$

24) rotation 180° about the origin
$K(-5, -4)$

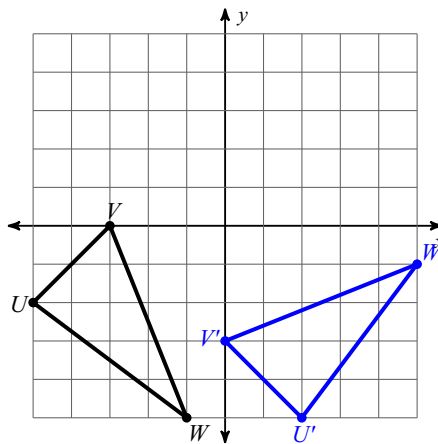25) rotation 180° about the origin
$S(0, 4)$

26) rotation 90° clockwise about the origin
$V(-3, 5)$

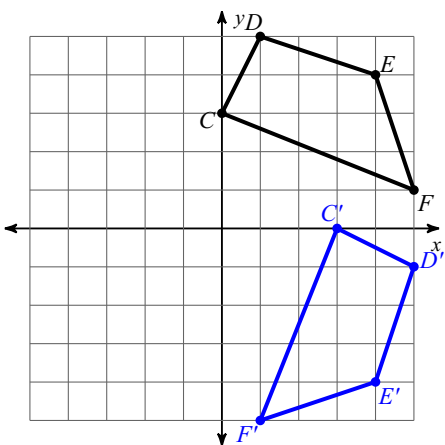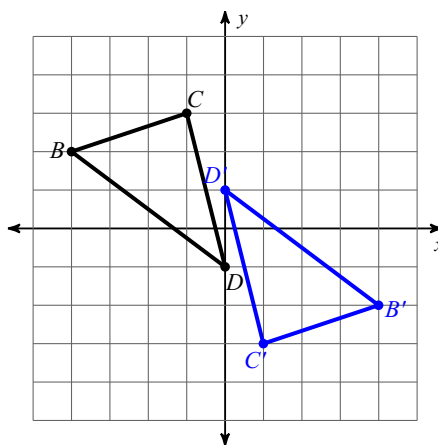**Write a rule to describe each transformation.**

27)

28)

29)

30)

Find the coordinates of the image given the pre-image and transformation.

31) translation: 7 units left and 1 unit up
$W(3, -1)$

32) rotation 180° about the origin
$E(1, 1)$

33) reflection across $y = x$
$U(1, -3)$

34) dilation of 2 about the origin
$Z(1, 2)$

35) rotation 90° clockwise about the origin
$W(1, 1)$

36) reflection across the x-axis
$J(-4, 2)$

37) dilation of 1.5 about the origin
$P(3, 0)$

38) reflection across $y = -x$
$L(5, 1)$

39) reflection across $y = -2$
$K(4, 0)$

40) translation: 8 units left
$F(5, 4)$