Math 1   Name_____

Unit 9.3 Rotations EXAMPLE
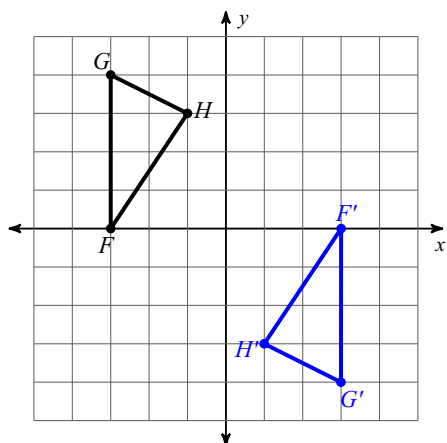
Write a rule to describe each transformation.

1) $W(1, -3)$, $X(-1, 1)$, $Y(1, 2)$, $Z(4, -2)$
   to
   $W'(3, 1)$, $X'(-1, -1)$, $Y'(-2, 1)$, $Z'(2, 4)$

2) $R(2, -2)$, $S(5, 2)$, $T(5, -3)$
   to
   $R'(-2, 2)$, $S'(-5, -2)$, $T'(-5, 3)$
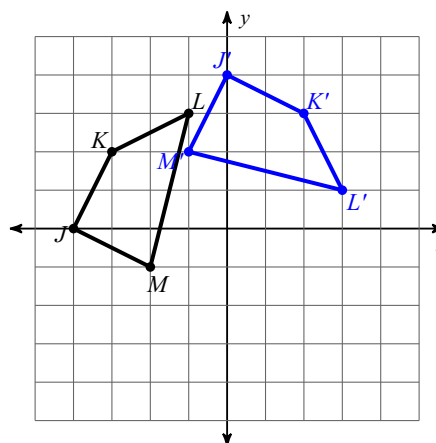
3) $V(-3, 1)$, $U(-1, 1)$, $T(-1, -3)$
   to
   $V'(1, 3)$, $U'(1, 1)$, $T'(-3, 1)$

4) $Y(2, -3)$, $X(4, 2)$, $W(5, 0)$
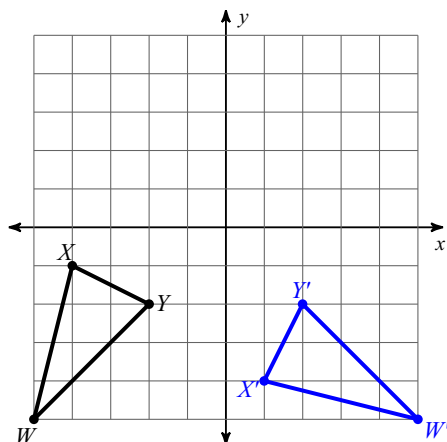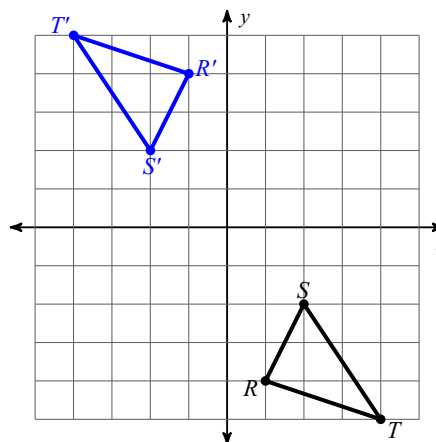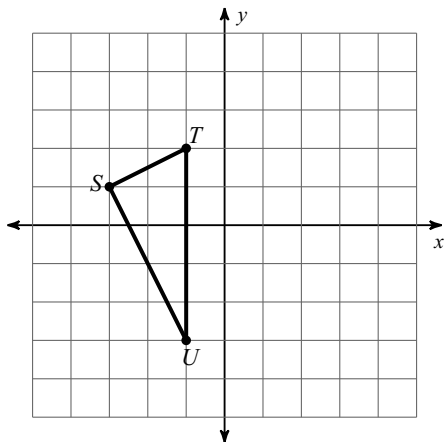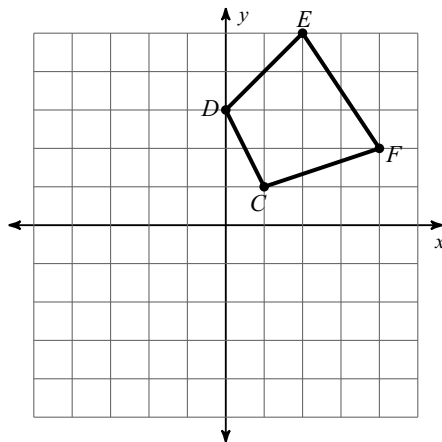   to
   $Y'(3, 2)$, $X'(-2, 4)$, $W'(0, 5)$

5)

6)

7)

8)
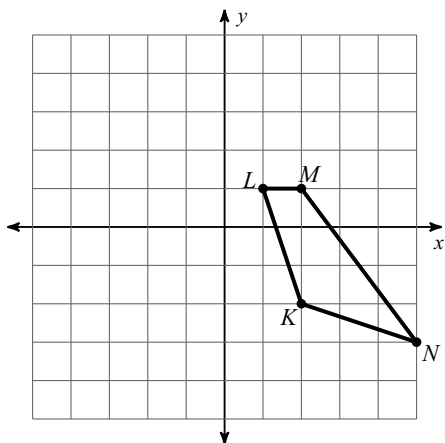
Graph the image of the figure using the transformation given.

9) rotation 180° about the origin
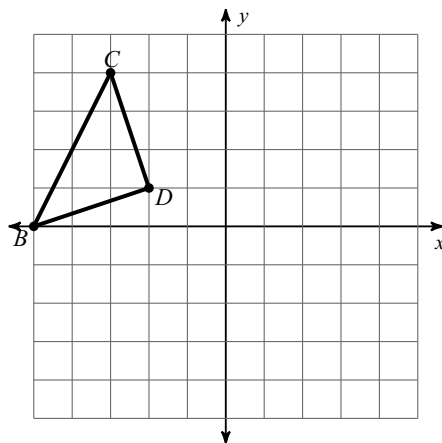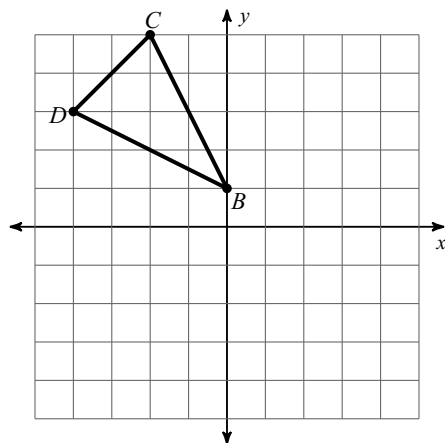

10) rotation 90° clockwise about the origin
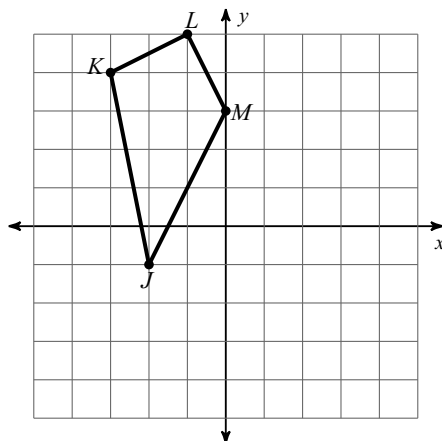

11) rotation 90° counterclockwise about the origin

12) rotation 180° about the origin

13) rotation 90° counterclockwise about the origin

14) rotation 180° about the origin
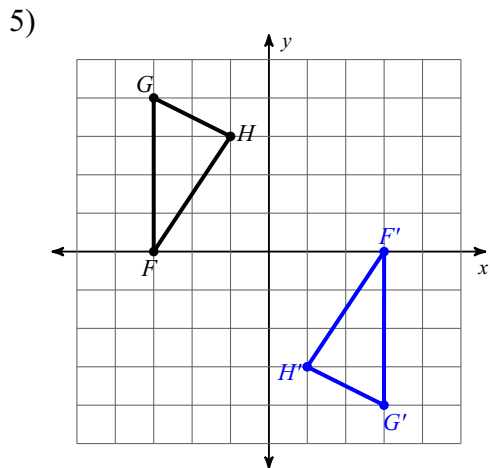
Name_____

Unit 9.3 Rotations EXAMPLE

Write a rule to describe each transformation.

1) $W(1, -3)$, $X(-1, 1)$, $Y(1, 2)$, $Z(4, -2)$
to
$W'(3, 1)$, $X'(-1, -1)$, $Y'(-2, 1)$, $Z'(2, 4)$

rotation 90° counterclockwise about the origin
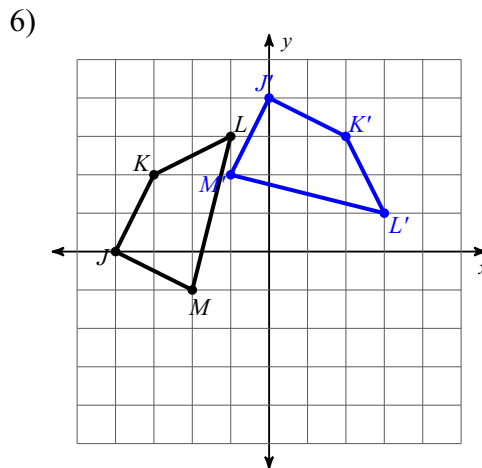
2) $R(2, -2)$, $S(5, 2)$, $T(5, -3)$
to
$R'(-2, 2)$, $S'(-5, -2)$, $T'(-5, 3)$

rotation 180° about the origin

3) $V(-3, 1)$, $U(-1, 1)$, $T(-1, -3)$
to
$V'(1, 3)$, $U'(1, 1)$, $T'(-3, 1)$

rotation 90° clockwise about the origin
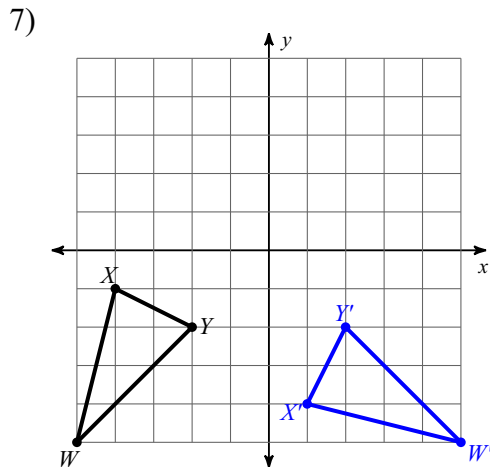
4) $Y(2, -3)$, $X(4, 2)$, $W(5, 0)$
to
$Y'(3, 2)$, $X'(-2, 4)$, $W'(0, 5)$

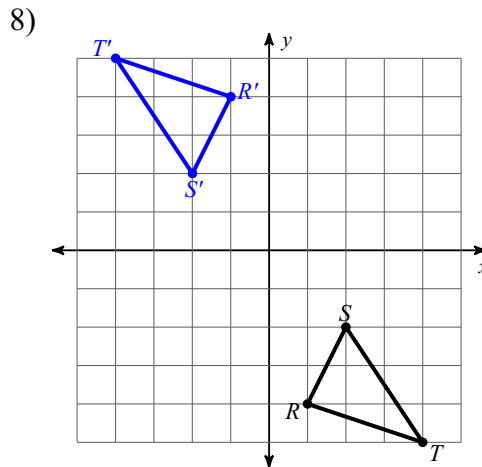rotation 90° counterclockwise about the origin

5)

rotation 180° about the origin

6)

rotation 90° clockwise about the origin

7)

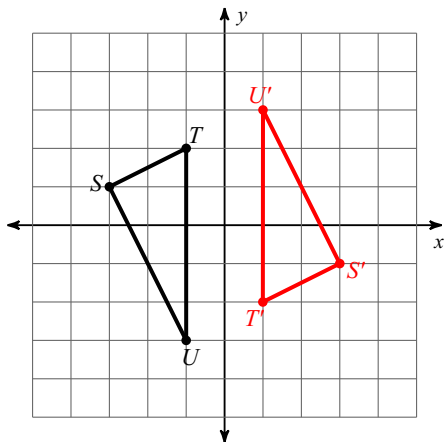rotation 90° counterclockwise about the origin

8)
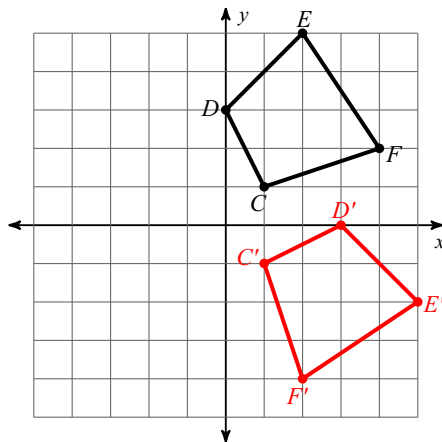

rotation 180° about the origin

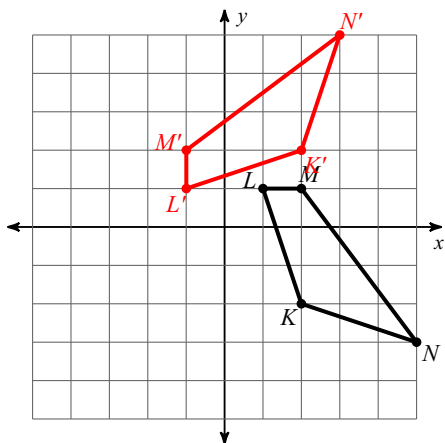**Graph the image of the figure using the transformation given.**
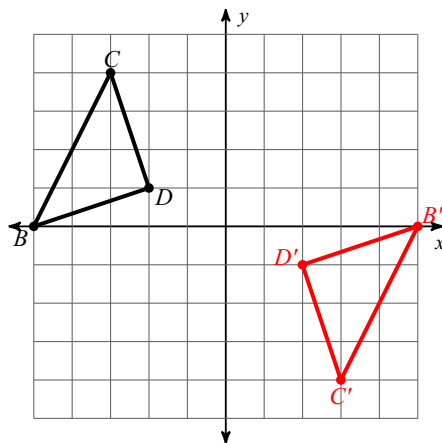
9) rotation 180° about the origin

10) rotation 90° clockwise about the origin

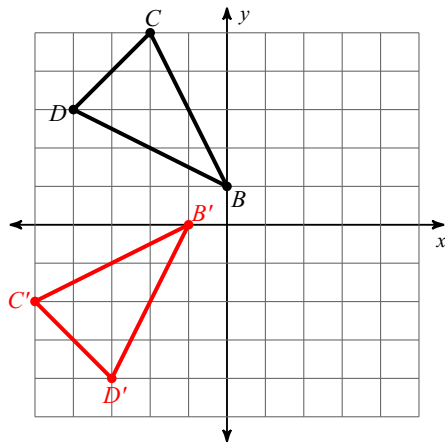11) rotation 90° counterclockwise about the origin

12) rotation 180° about the origin

13) rotation 90° counterclockwise about the origin

14) rotation 180° about the origin

-2-