Name_____

Rotations of Shapes

Date_____ Period_____

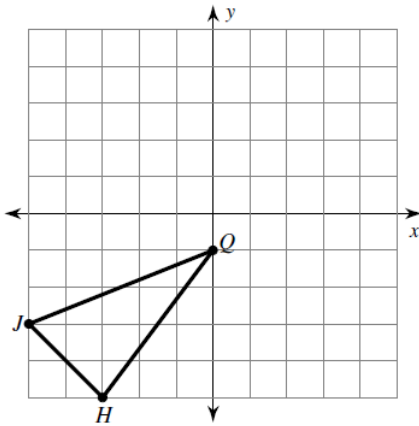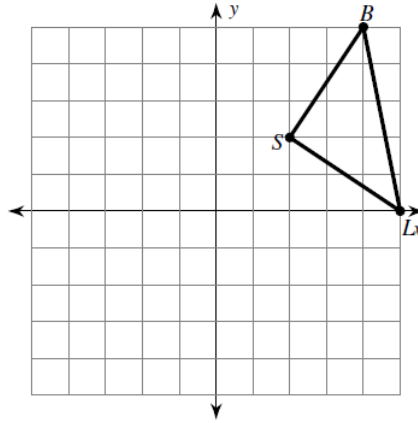**Graph the image of the figure using the transformation given.**
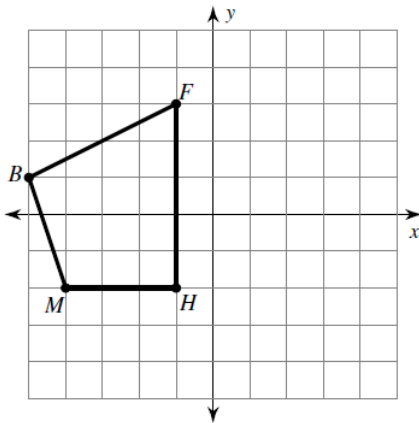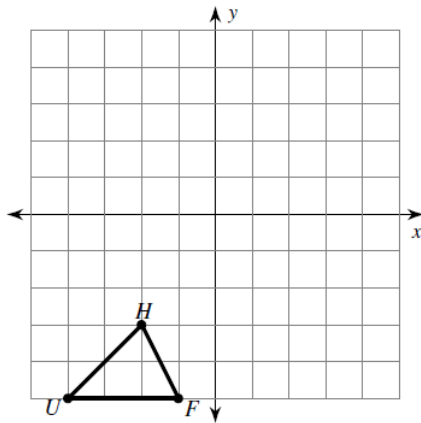
1) rotation 180° about the origin

2) rotation 90° counterclockwise about the origin
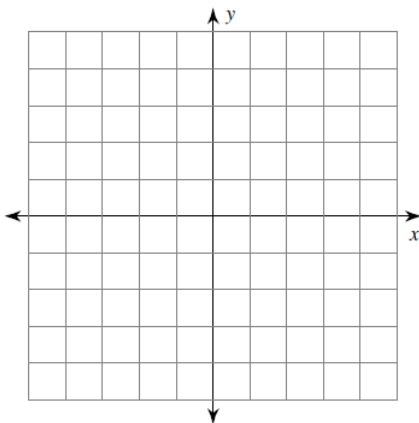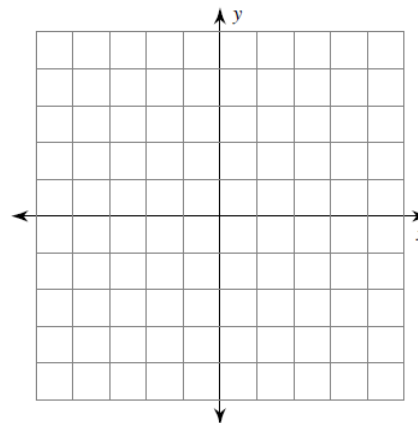

3) rotation 90° clockwise about the origin

4) rotation 180° about the origin

5) rotation 90° clockwise about the origin
   $U(1, -2), W(0, 2), K(3, 2), G(3, -3)$

6) rotation 180° about the origin
   $V(2, 0), S(1, 3), G(5, 0)$

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

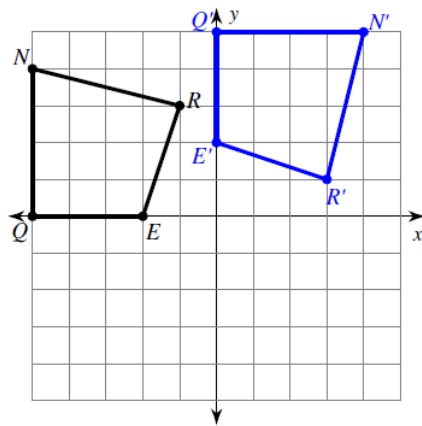7) rotation 180° about the origin
Z(−1, −5), K(−1, 0), C(1, 1), N(3, −2)

8) rotation 180° about the origin
L(1, 3), Z(5, 5), F(4, 2)

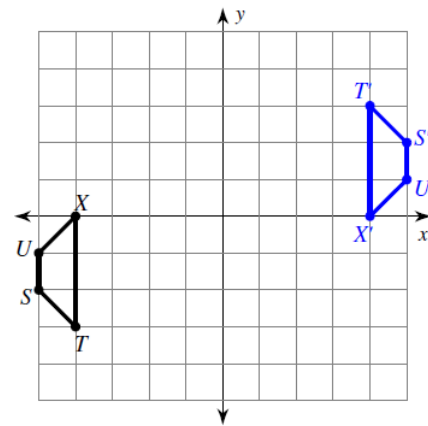9) rotation 90° clockwise about the origin
S(1, −4), W(1, 0), J(3, −4)

10) rotation 180° about the origin
V(−5, −3), A(−3, 1), G(0, −3)

Write a rule to describe each transformation.
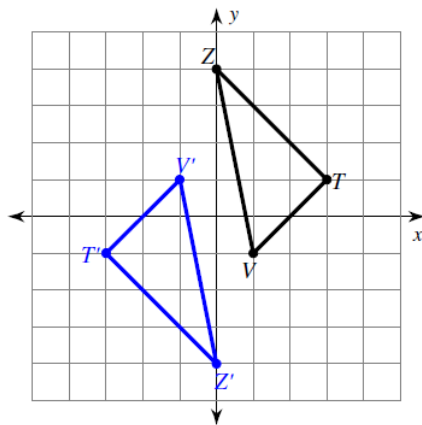
11)

12)

13)

14)