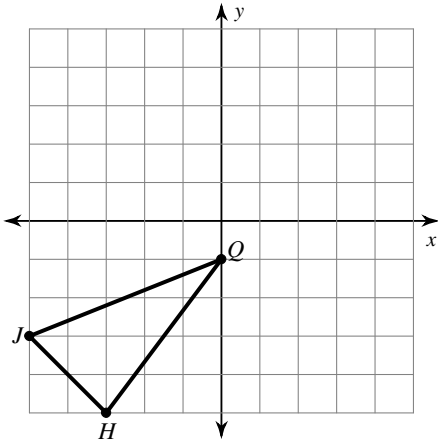


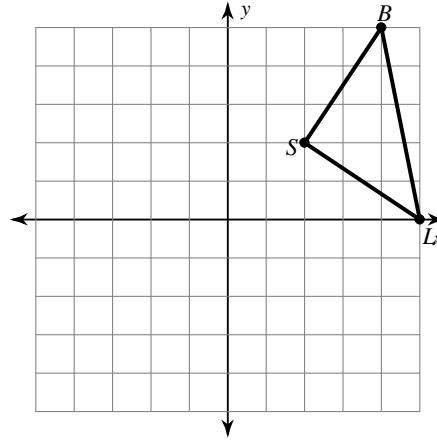
Rotations of Shapes

Graph the image of the figure using the transformation given.

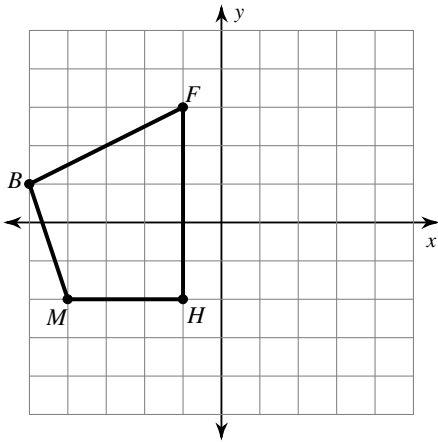
1) rotation 180° about the origin



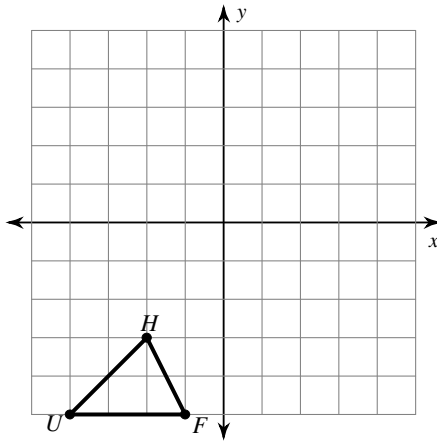
2) rotation 90° counterclockwise about the origin



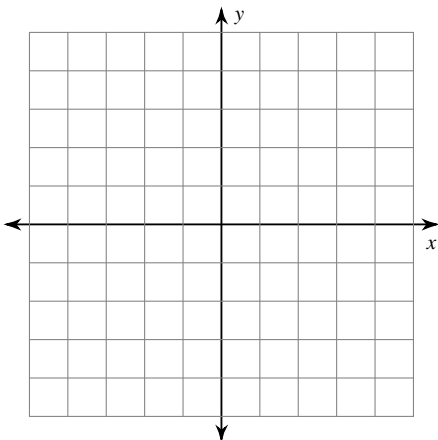
3) rotation 90° clockwise about the origin



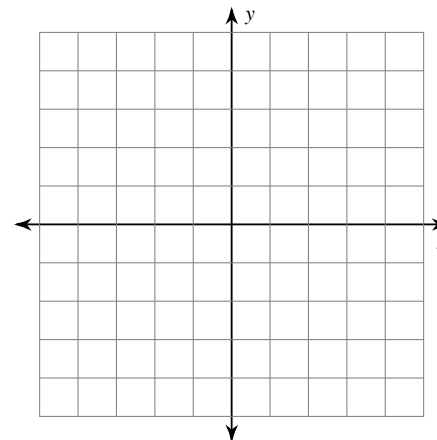
4) rotation 180° about the origin



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
 $Z(-1, -5)$, $K(-1, 0)$, $C(1, 1)$, $N(3, -2)$

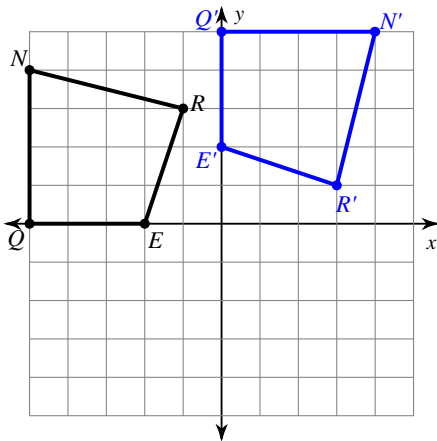
8) rotation 180° about the origin
 $L(1, 3)$, $Z(5, 5)$, $F(4, 2)$

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

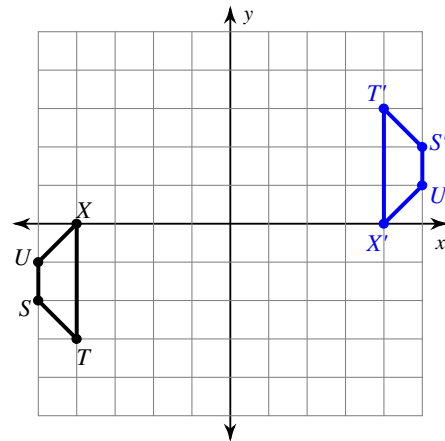
10) rotation 180° about the origin
 $V(-5, -3)$, $A(-3, 1)$, $G(0, -3)$

Write a rule to describe each transformation.

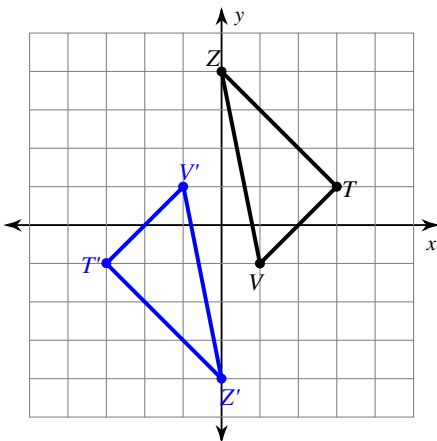
11)



12)



13)



14)

