

Homework

Kuta Software - Infinite Geometry

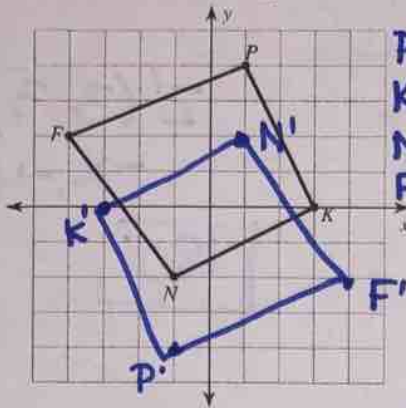
Name _____

Rotations

Date _____ Period _____

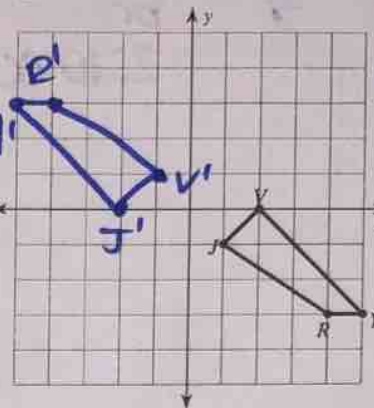
Graph the image of the figure using the transformation given.

1) rotation 180° about the origin $-X; Y$



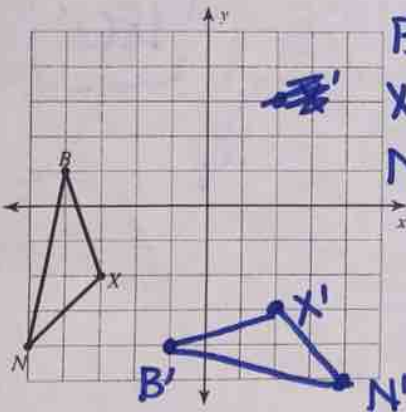
$P(1,4) \rightarrow (-1,-4)$
 $K(3,0) \rightarrow (-3,0)$
 $N(-1,-2) \rightarrow (1,2)$
 $F(-4,2) \rightarrow (4,-2)$

2) rotation 180° about the origin $-X, -Y$



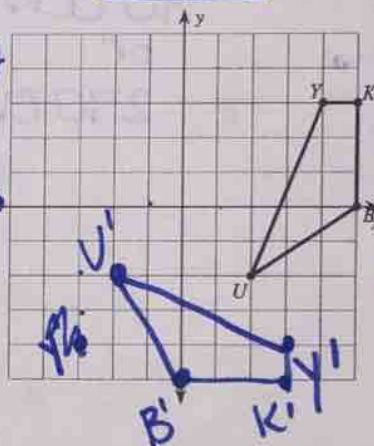
$V(2,0) \rightarrow (-2,0)$
 $J(1,-1) \rightarrow (-1,1)$
 $R(4,-3) \rightarrow (-4,3)$
 $Y(5,-3) \rightarrow (-5,3)$

3) rotation 90° counterclockwise about the origin $270^\circ \text{ CW } (-Y, X)$



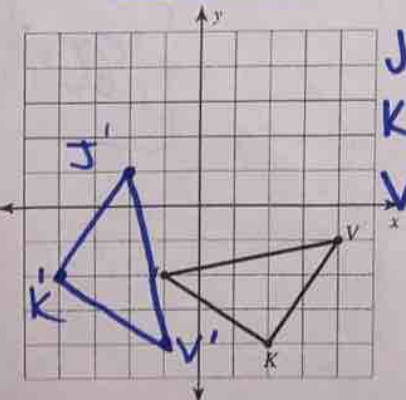
$B(-4,1) \rightarrow -1,-4$
 $X(3,-2) \rightarrow 2,3$
 $N(-5,4) \rightarrow 4,5$

4) rotation 90° clockwise about the origin $Y, -X$



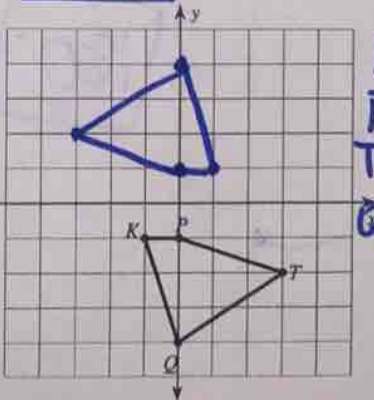
$Y(4,3)$
 $K(5,3)$
 $B(5,0)$
 $U(2,-2)$

5) rotation 90° clockwise about the origin $Y, -X$



$J(-1,-2) \rightarrow 2,1$
 $K(2,4) \rightarrow -4,-2$
 $V(4,-1) \rightarrow -1,-4$

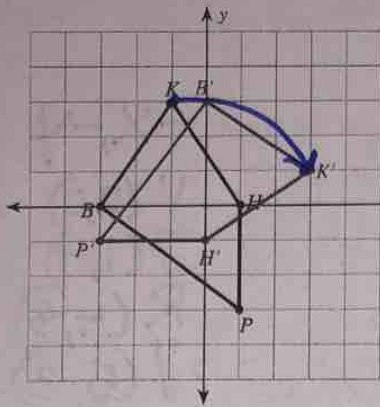
6) rotation 180° about the origin $-X, -Y$



$K(-1,1) \rightarrow 1,1$
 $P(0,-1) \rightarrow 0,1$
 $T(3,-2) \rightarrow -3,2$
 $Q(0,-4) \rightarrow 0,4$

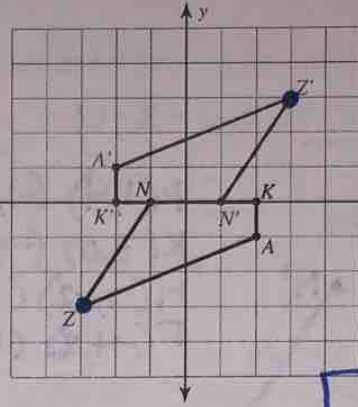
Write a rule to describe each transformation.

7)



90° CW
or
270° CCW

8)

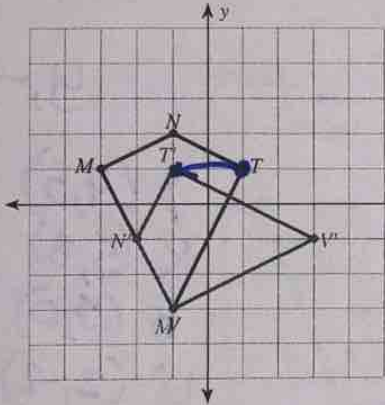


$Z(-3, -3)$
 x, y

$Z'(3, 3)$
 $-x, -y$

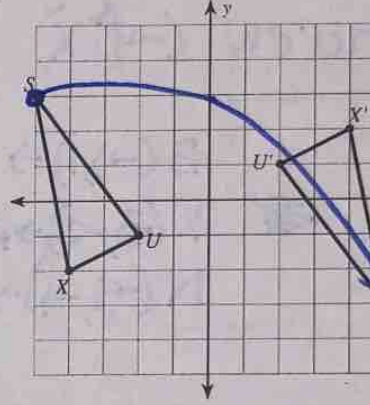
180°

9)



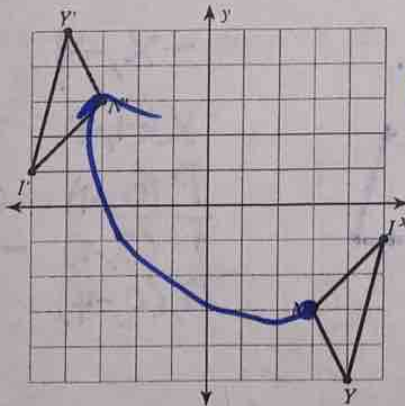
90° CCW
or
270° CW

10)



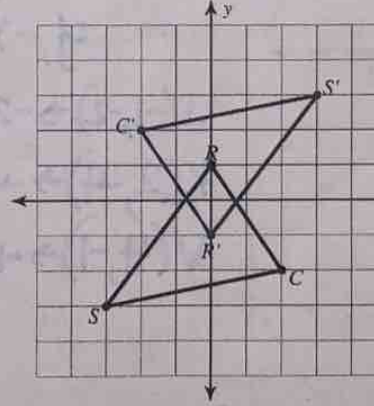
180°

11)



180°

12)



180°