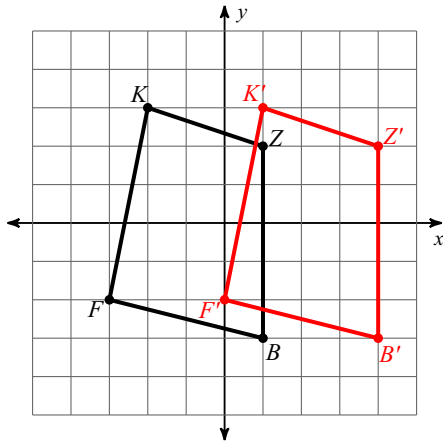


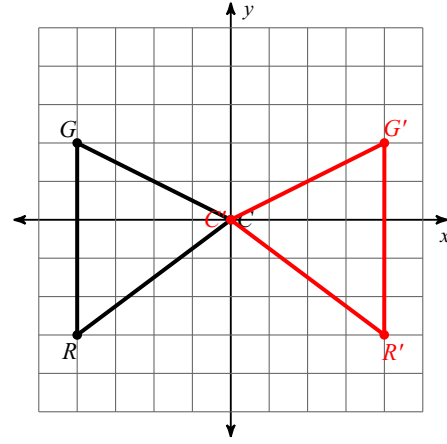
Transformations

Graph the image of the figure using the transformation given.

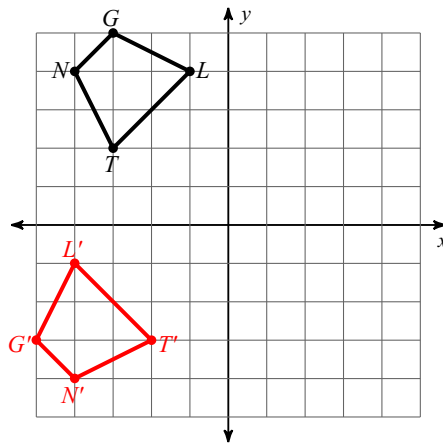
1) translation:  $(x, y) \rightarrow (x + 3, y)$



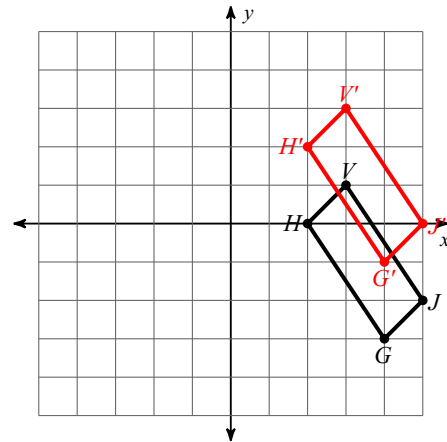
2) reflection across the y-axis



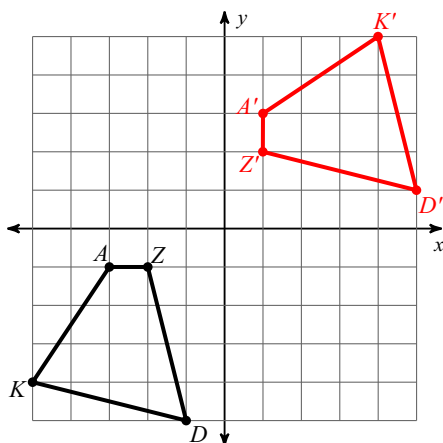
3) rotation  $90^\circ$  counterclockwise about the origin



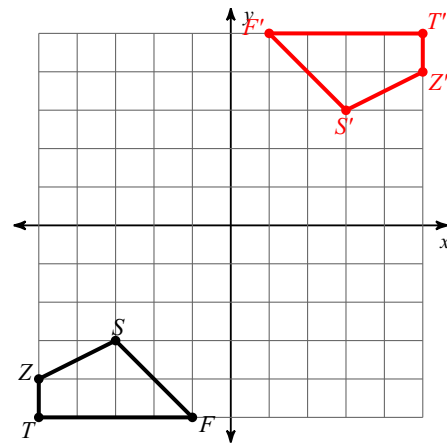
4) translation:  $(x, y) \rightarrow (x, y + 2)$



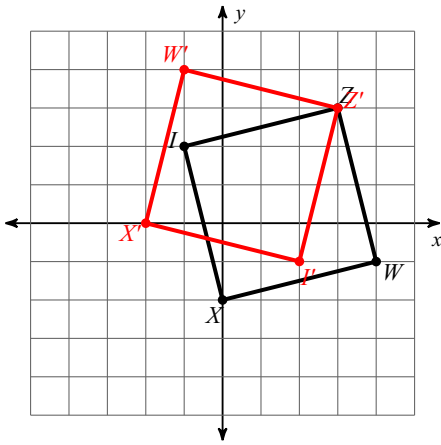
5) reflection across  $y = -x$



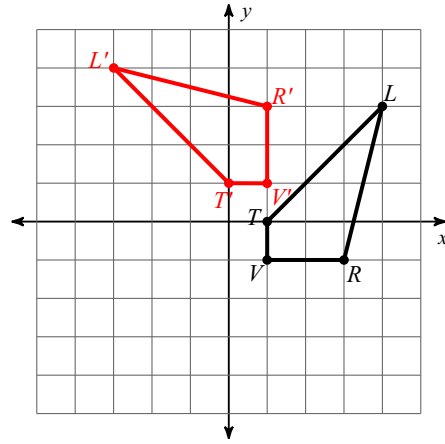
6) rotation  $180^\circ$  about the origin



7) reflection across  $y = x$

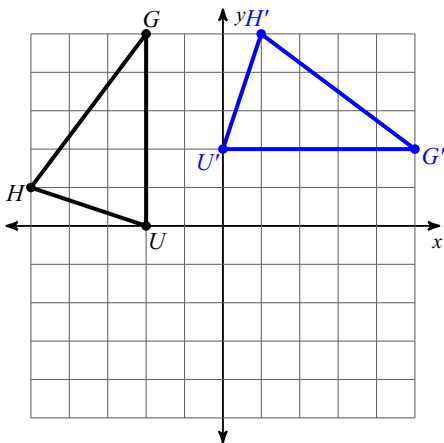


8) rotation  $90^\circ$  counterclockwise about the origin



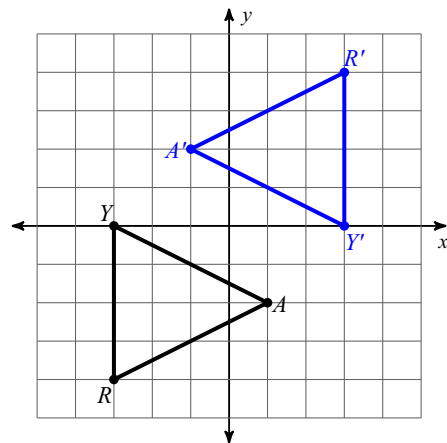
Write a rule to describe each transformation.

9)



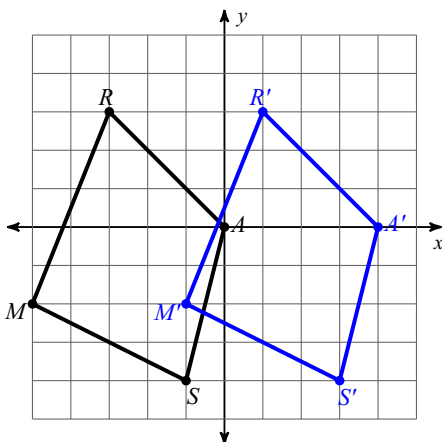
rotation  $90^\circ$  clockwise about the origin

10)



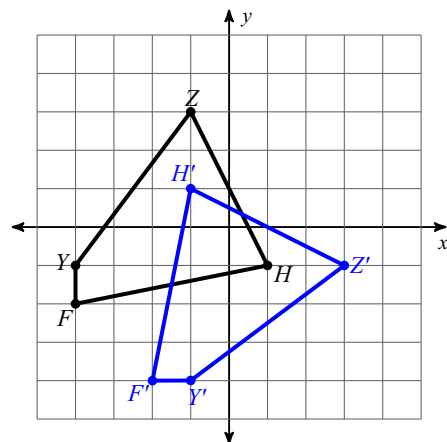
rotation  $180^\circ$  about the origin

11)



translation:  $(x, y) \rightarrow (x + 4, y)$

12)



reflection across  $y = x$