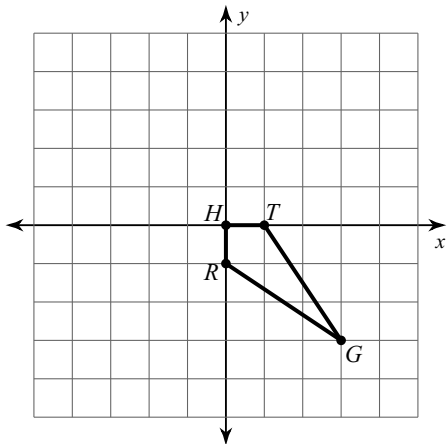


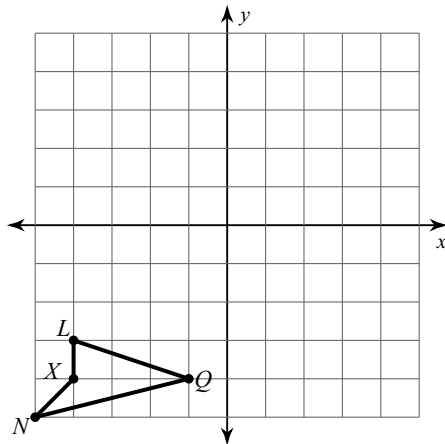
# All Transformations Practice

**Graph the image of the figure using the transformation given.**

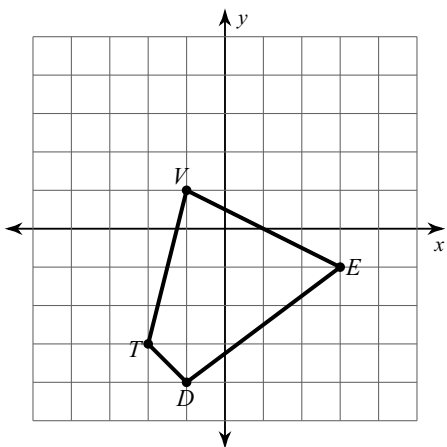
1) translation:  $(x, y) \rightarrow (x - 5, y + 3)$



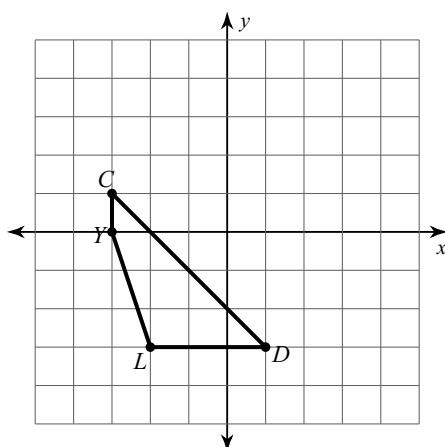
2) translation:  $(x, y) \rightarrow (x + 1, y + 5)$



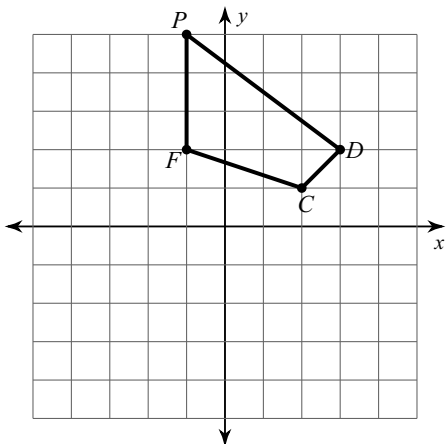
3) reflection across the y-axis



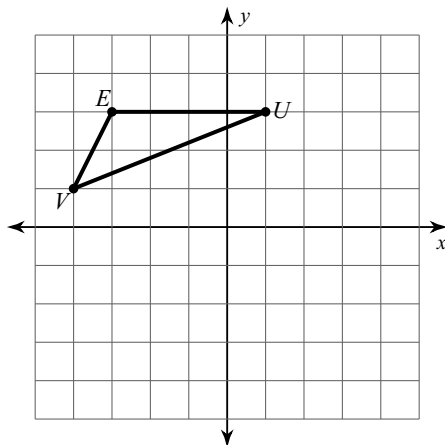
4) reflection across  $y = x$



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

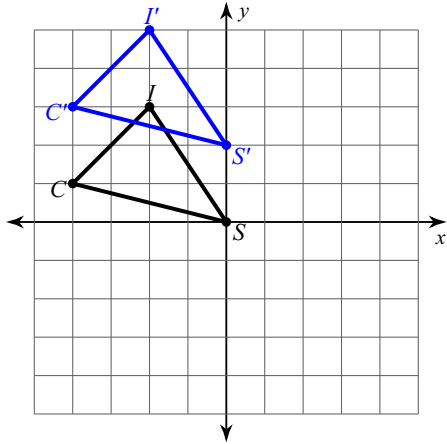


6) rotation  $90^\circ$  counterclockwise about the origin

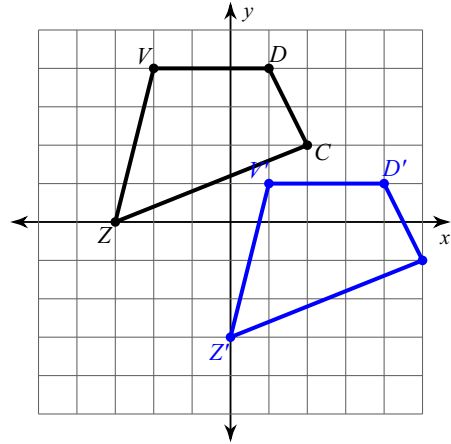


Write a rule to describe each transformation.

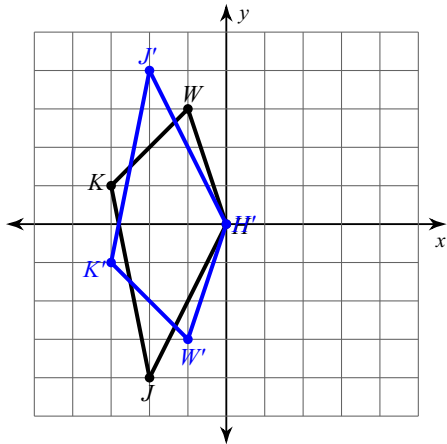
7)



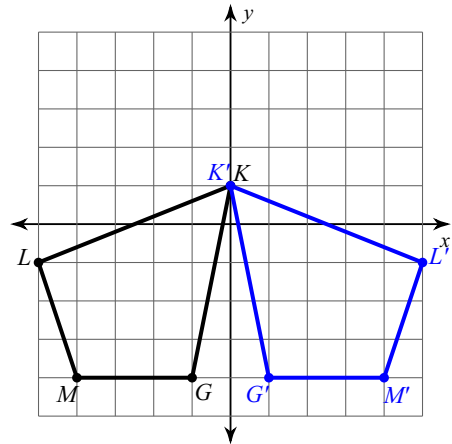
8)



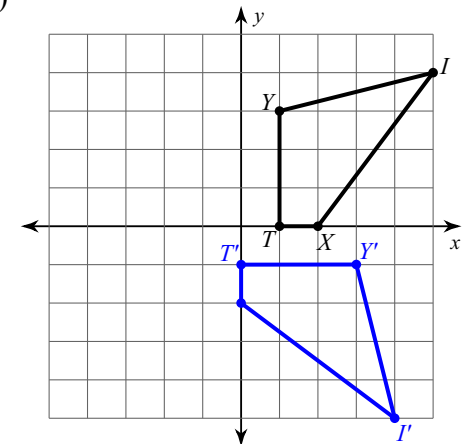
9)



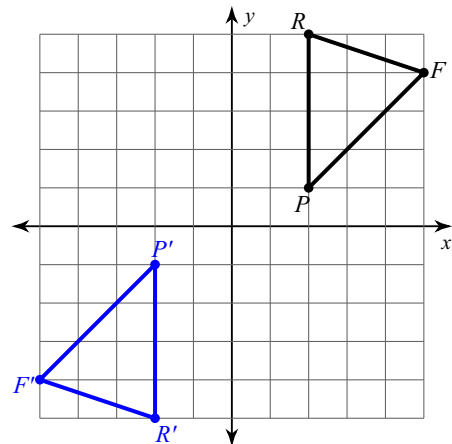
10)



11)

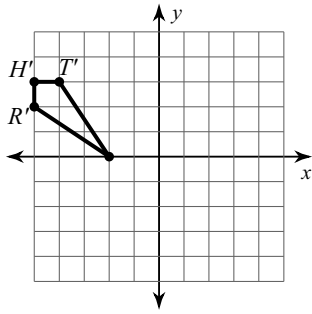


12)

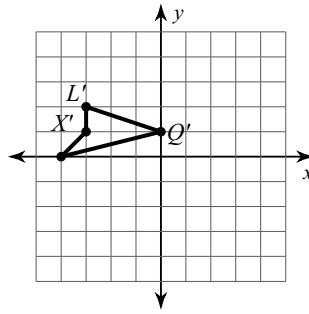


# Answers to All Transformations Practice

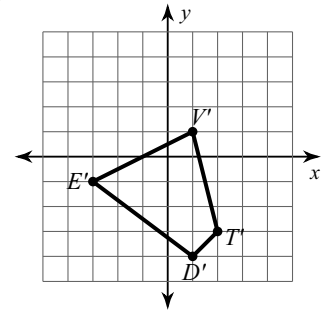
1)



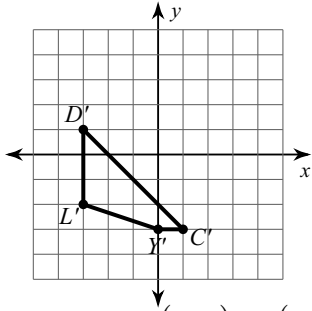
2)



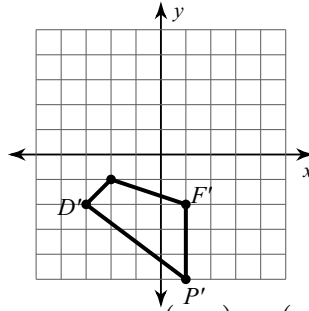
3)



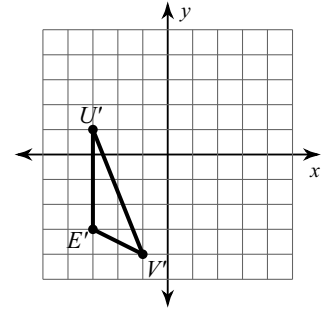
4)



5)



6)



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

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

9) reflection across the x-axis

10) reflection across the y-axis

11) rotation  $90^\circ$  clockwise about the origin

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