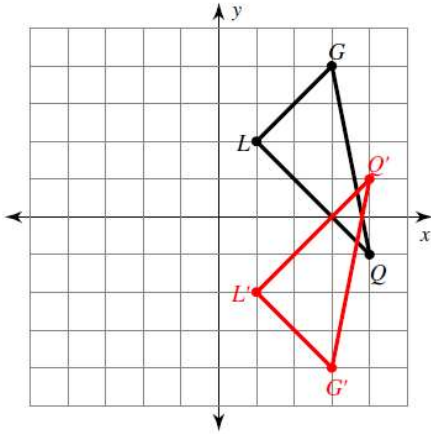


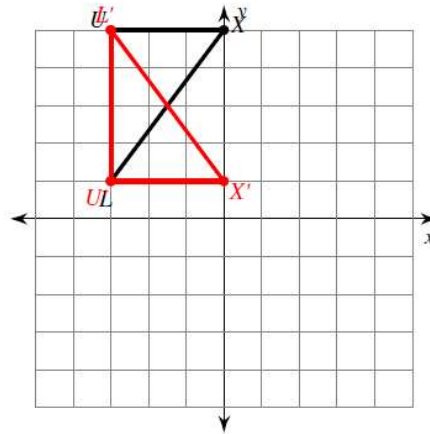
# Reflections of Shapes

Graph the image of the figure using the transformation given.

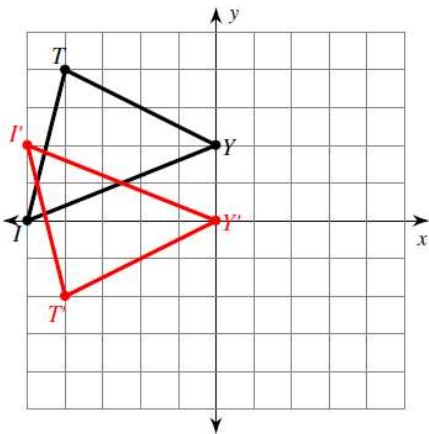
1) reflection across the x-axis



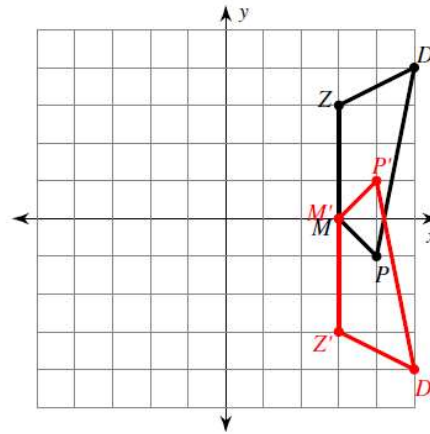
2) reflection across  $y = 3$



3) reflection across  $y = 1$

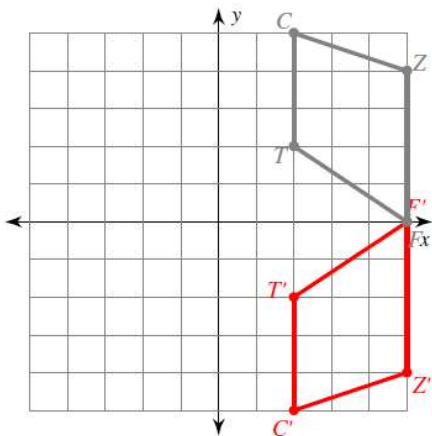


4) reflection across the x-axis



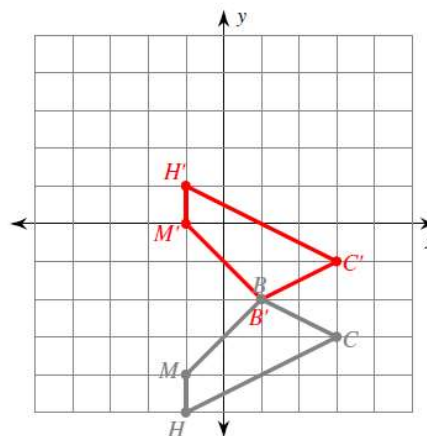
5) reflection across the x-axis

$T(2, 2)$ ,  $C(2, 5)$ ,  $Z(5, 4)$ ,  $F(5, 0)$



6) reflection across  $y = -2$

$H(-1, -5)$ ,  $M(-1, -4)$ ,  $B(1, -2)$ ,  $C(3, -3)$



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

- 7) reflection across the x-axis  
 $K(1, -1), N(4, 0), Q(4, -4)$   
 $N'(4, 0), Q'(4, 4), K'(1, 1)$

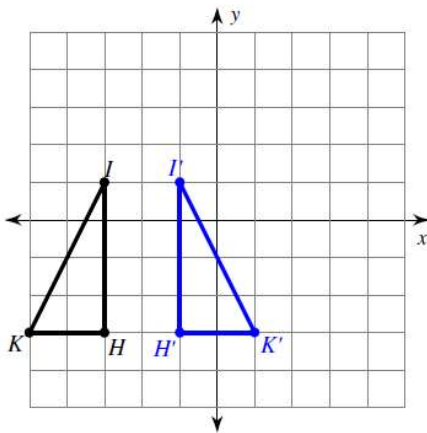
- 8) reflection across  $y = -1$   
 $R(-3, -5), N(-4, 0), V(-2, -1), E(0, -4)$   
 $N'(-4, -2), V'(-2, -1), E'(0, 2), R'(-3, 3)$

- 9) reflection across  $x = 3$   
 $F(2, 2), W(2, 5), K(3, 2)$   
 $W'(4, 5), K'(3, 2), F'(4, 2)$

- 10) reflection across  $x = -1$   
 $V(-3, -1), Z(-3, 2), G(-1, 3), M(1, 1)$   
 $Z'(1, 2), G'(-1, 3), M'(-3, 1), V'(1, -1)$

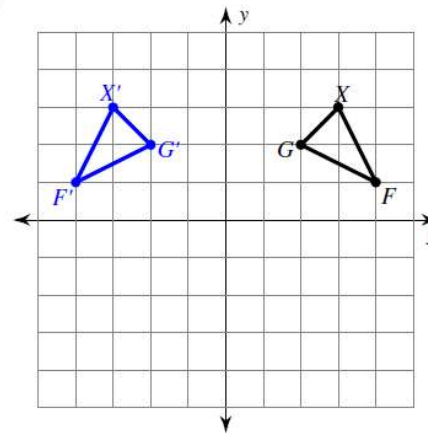
Write a rule to describe each transformation.

11)



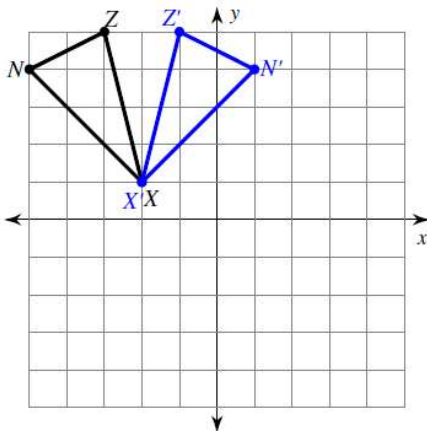
reflection across  $x = -2$

12)



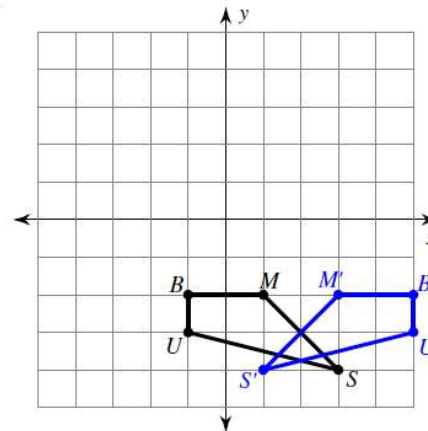
reflection across the y-axis

13)



reflection across  $x = -2$

14)



reflection across  $x = 2$