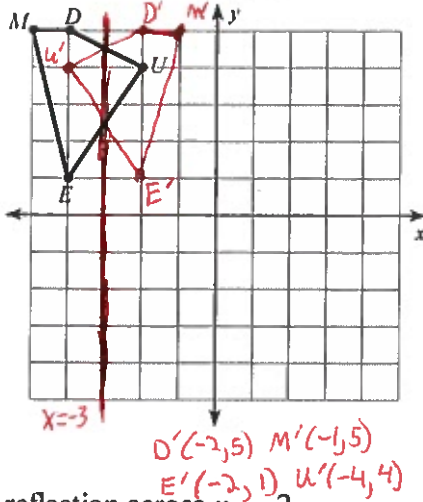


# Reflection

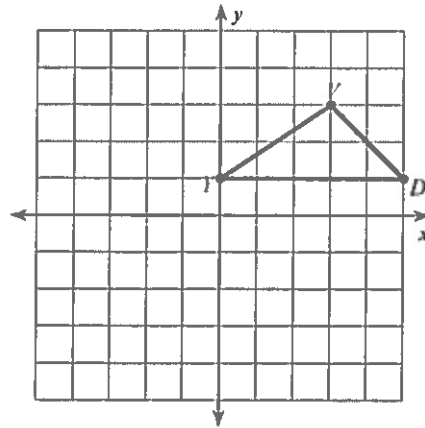
© 2015 Kuta Software LLC. All rights reserved.

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

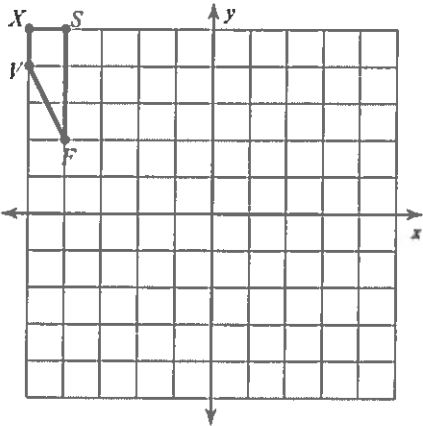
1) reflection across  $x = -3$



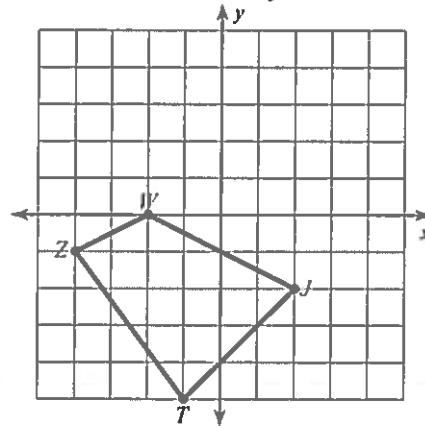
2) reflection across the x-axis



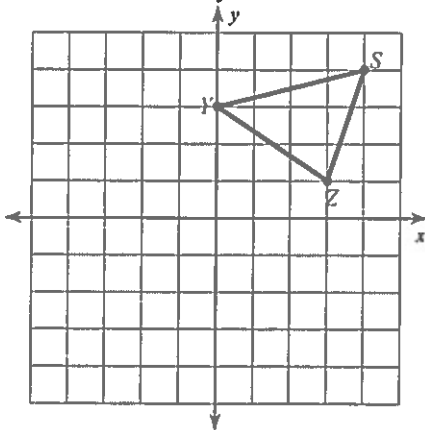
3) reflection across  $x = -2$



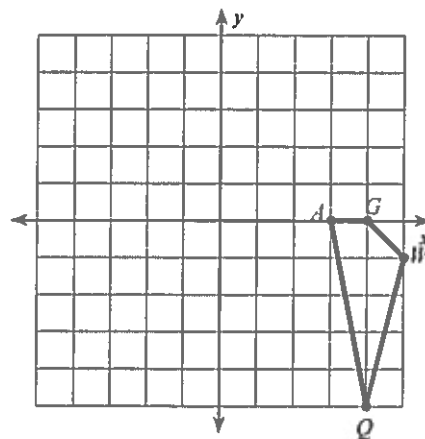
4) reflection across the y-axis



5) reflection across  $y = 3$

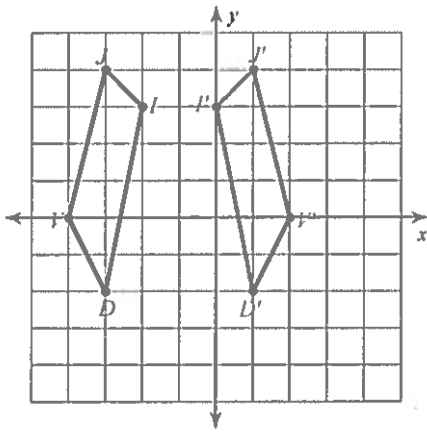


6) reflection across  $x = 4$

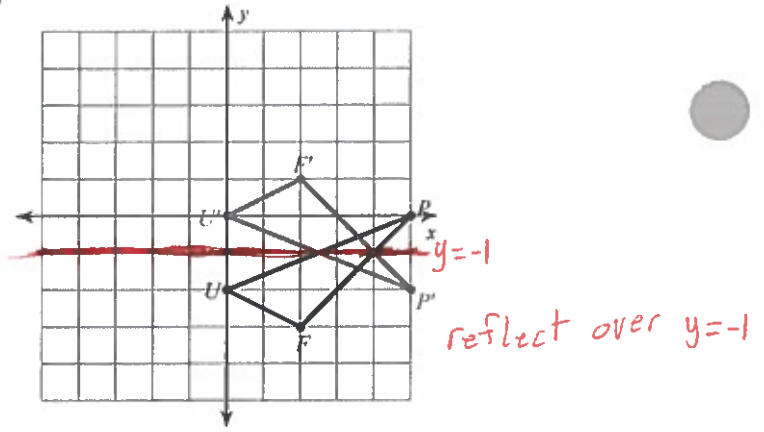


Write a rule to describe each transformation.

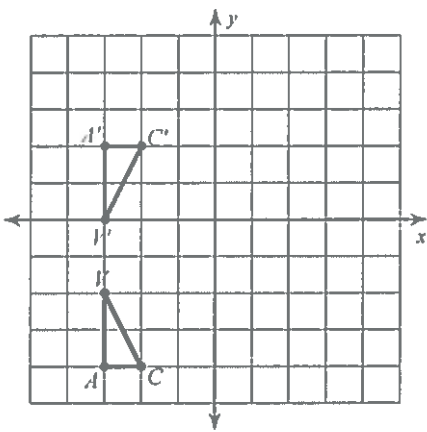
7)



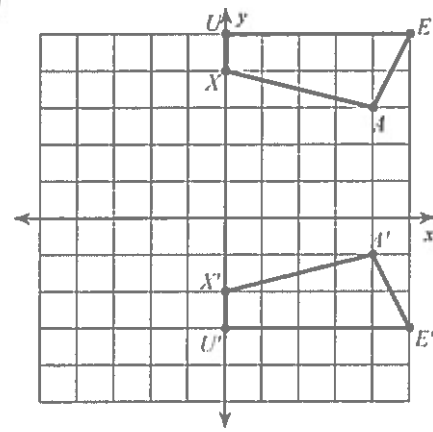
8)



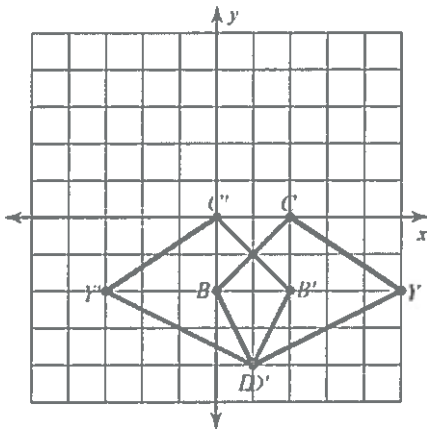
9)



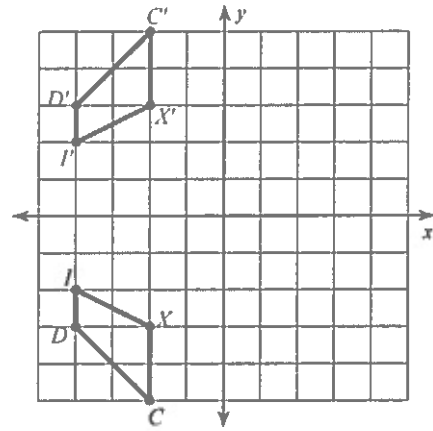
10)



11)



12)

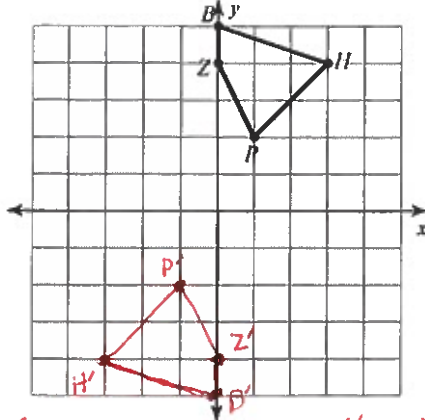


# Rotations

© 2015 Kuta Software LLC. All rights reserved.

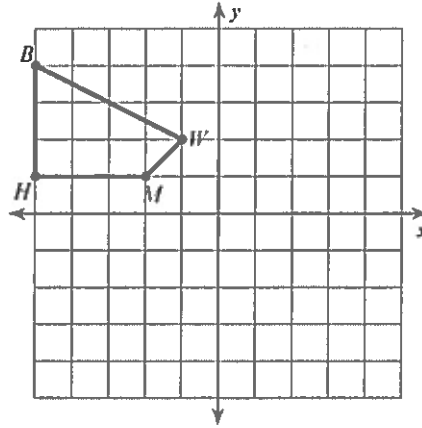
Find the coordinates of the vertices of each figure after the given transformation.

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

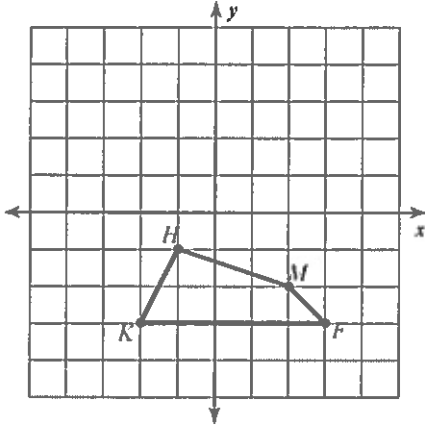


$P'(-1, -2)$   $H'(-3, -4)$   $Z'(0, -4)$   $B'(0, -5)$

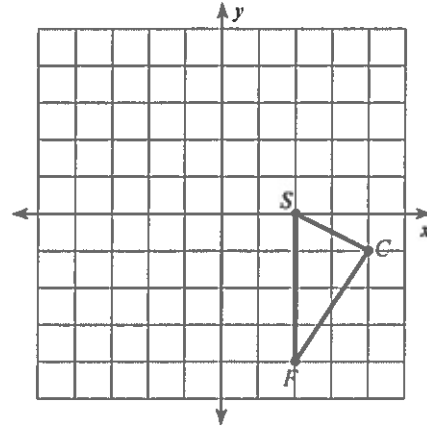
2) rotation  $90^\circ$  counterclockwise about the origin



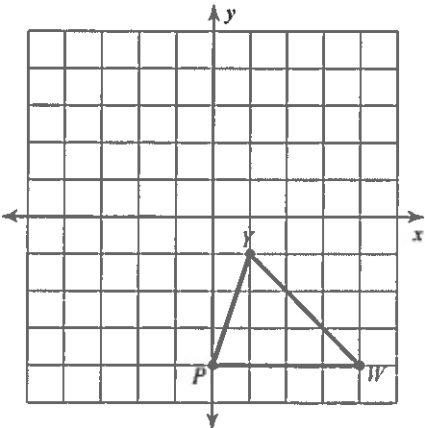
3) rotation  $90^\circ$  clockwise about the origin



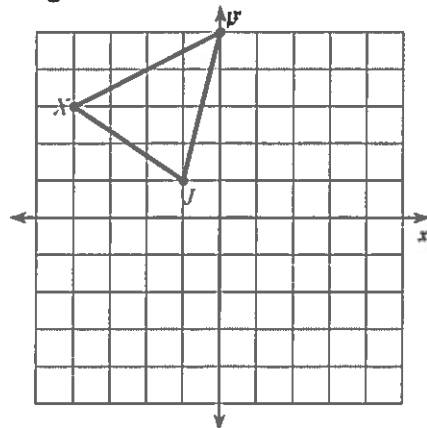
4) rotation  $90^\circ$  clockwise about the origin



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

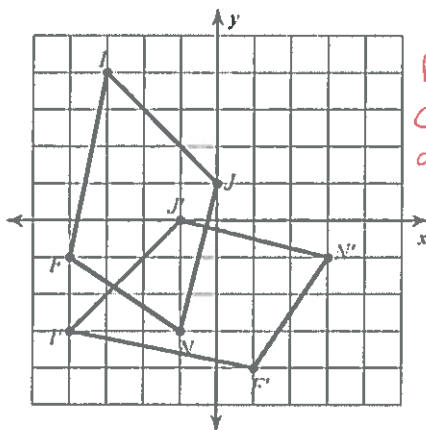


6) rotation  $90^\circ$  counterclockwise about the origin



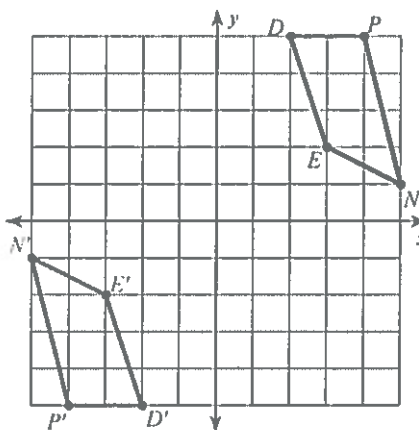
Write a rule to describe each transformation.

7)

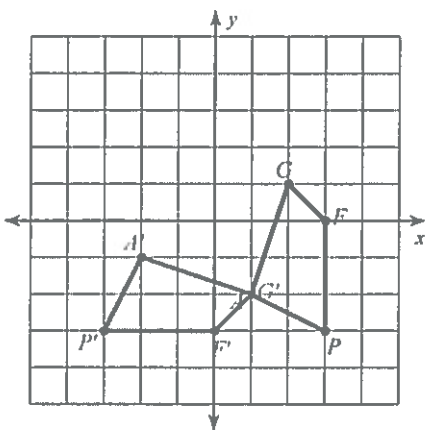


Rotate  $90^\circ$   
Counter clockwise  
about the origin

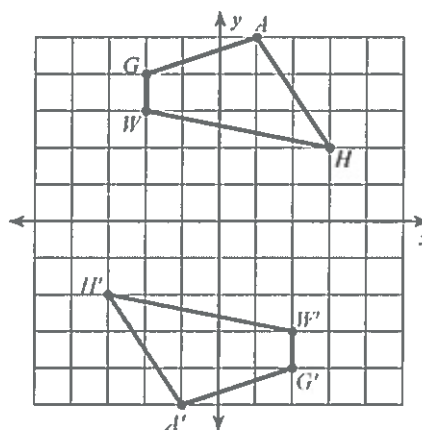
8)



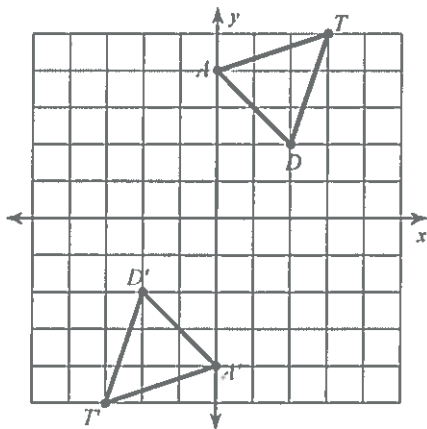
9)



10)



11)



12)

