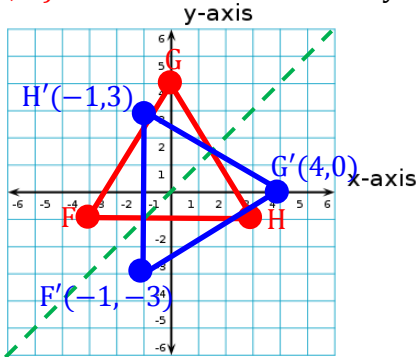


# TEST REVIEW-UNIT 1

Graph the figure and its image under the given reflection. Label all points. Give the coordinates of the reflected image.

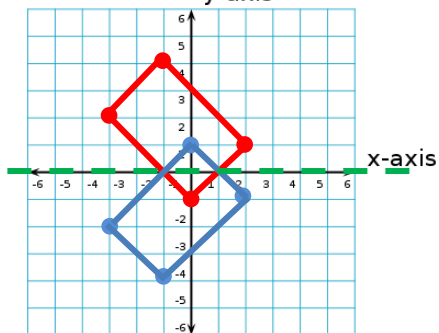
1.  $\triangle FGH$  with vertices  $F(-3,-1)$ ,  $G(0,4)$ ,  $H(3,-1)$

Reflect across  $y = x$ .



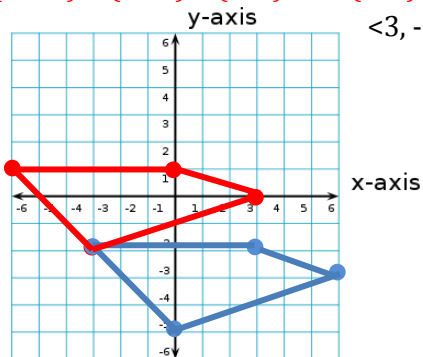
2. Rectangle  $QRST$  with vertices  $Q(-3,2)$ ,  $R(-1,4)$ ,  $S(2,1)$ , and  $T(0,-1)$

Reflect across the x-axis



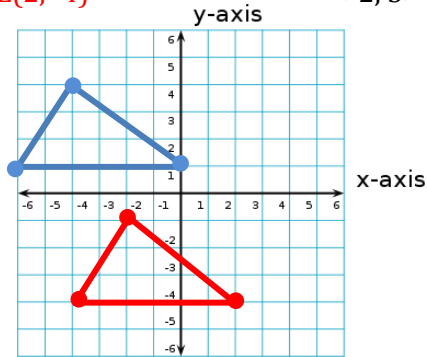
3. Quadrilateral  $TUVW$  with vertices  $T(-3,-2)$ ,  $U(-6,1)$ ,  $V(0,1)$ , &  $W(3,0)$

$\langle 3, -3 \rangle$



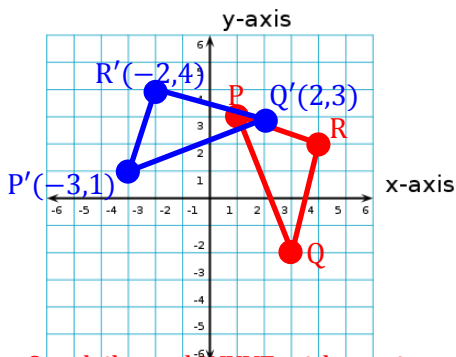
4.  $\triangle JKL$  with vertices  $J(-4,-4)$ ,  $K(-2,-1)$ , &  $L(2,-4)$

$\langle -2, 5 \rangle$



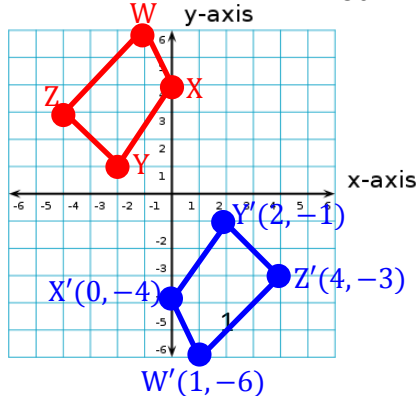
5.  $\triangle PQR$  with vertices  $P(1,3)$ ,  $Q(3,-2)$ ,  $R(4,2)$

$90^\circ$  counter clockwise



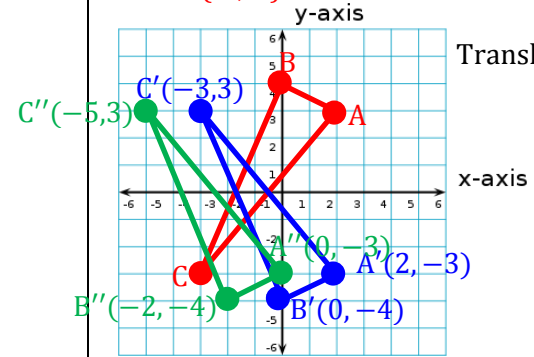
6. Quadrilateral  $WXYZ$  with vertices  $W(-1,6)$ ,  $X(0,4)$ ,  $Y(-2,1)$ , &  $Z(-4,3)$

$180^\circ$



7.  $\triangle ABC$  with vertices  $A(2,3)$ ,  $B(0,4)$ ,  $C(-3,-3)$

Reflect: over the x-axis

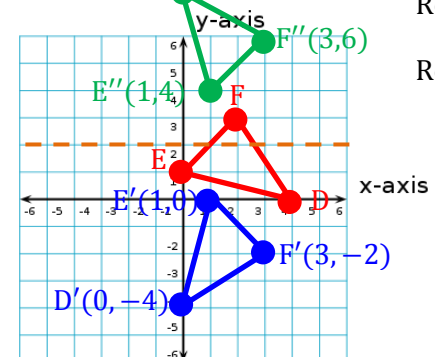


Translate:  $\langle -2, 0 \rangle$

8.  $\triangle DEF$  with vertices  $D(4,0)$ ,  $E(0,1)$ , and  $F(2,3)$

Rotate:  $90^\circ$  CW

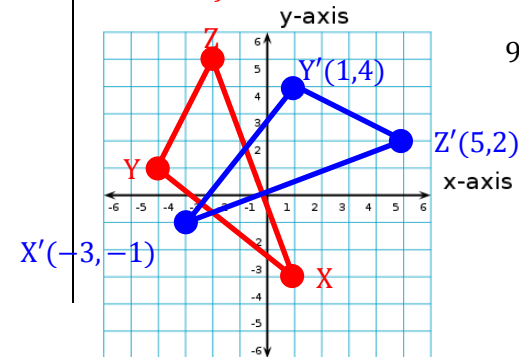
Reflect:  $y=2$



9.  $\triangle XYZ$  with vertices  $X(1,-3)$ ,  $Y(-4,1)$ , &  $Z(-2,5)$

~~$270^\circ$  CCW~~

$90^\circ$  CW



10. Find the image of point  $A(6, -12)$  along the translation vector  $\langle -4, 7 \rangle$

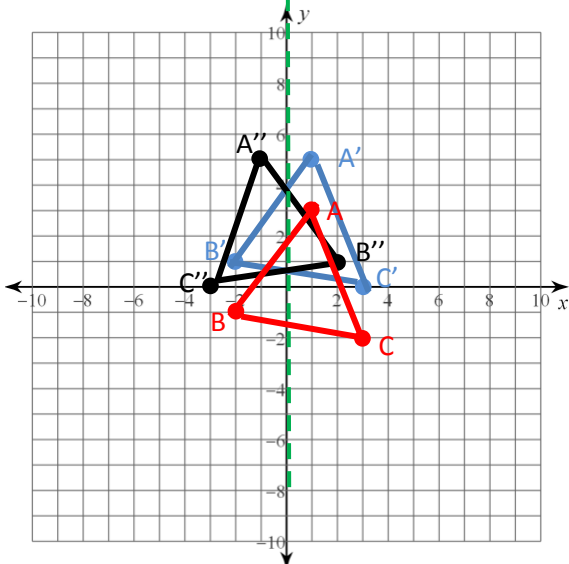
$$(2, -5)$$

11. Given  $C(3, 1)$ , under which reflection is  $C'(1, 3)$ ?

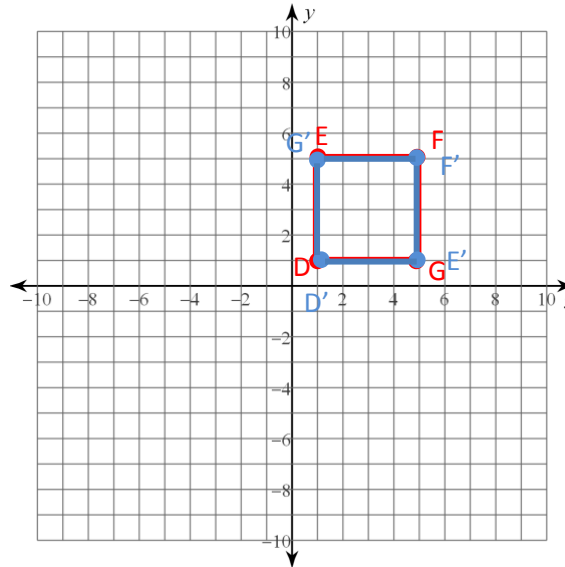
$$y = x$$

12. For triangle  $ABC$  with vertices  $A(1, 3)$ ,  $B(-2, -1)$  and  $C(3, -2)$ , graph  $\triangle ABC$  and its image after a translation along  $\langle 0, 2 \rangle$  and a reflection across the  $y$  axis. Label all points.

● Pre-image  
● Image  
● 2<sup>nd</sup> Image



13. Graph quadrilateral  $DEFG$  with vertices at  $D(1, 1)$ ,  $E(1, 5)$ ,  $F(5, 5)$ , and  $G(5, 1)$ . Quadrilateral  $DEFG$  is reflected in the line  $y=x$ . Find and graph the coordinates of the transformed image.

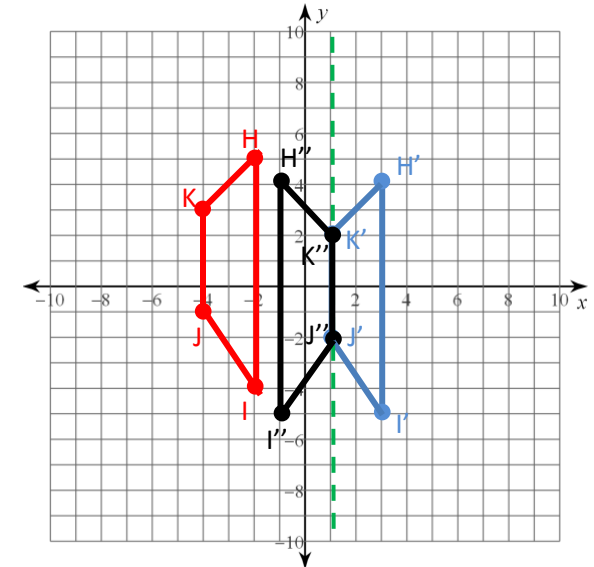


14. Parallelogram  $JKLM$  has vertices  $J(2,1)$ ,  $K(7,1)$ ,  $L(6, -3)$ , and  $M(1, -3)$ . What is the coordinate of  $K'$  and  $K''$  if the parallelogram is reflected in  $y=-1$  then dilated with  $k=2$ ?

$$K'(7, -3)$$

$$K''(14, -6)$$

15. Graph the trapezoid  $HIJK$  with vertices  $H(-2, 5)$ ,  $I(-2, -4)$ ,  $J(-4, -1)$ , and  $K(-4, 3)$ . Trapezoid  $HIJK$  is translated  $\langle 5, -1 \rangle$  and then reflected in the line  $x=1$ . Find and graph the coordinates of the transformed image.



16. Find the image of  $B(-4, -7)$  translated three units to the left and five units up, and then reflected across the line  $y=x$ . Find the translated coordinate.

$$B'(-7, -2)$$

$$B''(-2, -7)$$