

$$y=x \quad (x,y) \rightarrow (y,x)$$

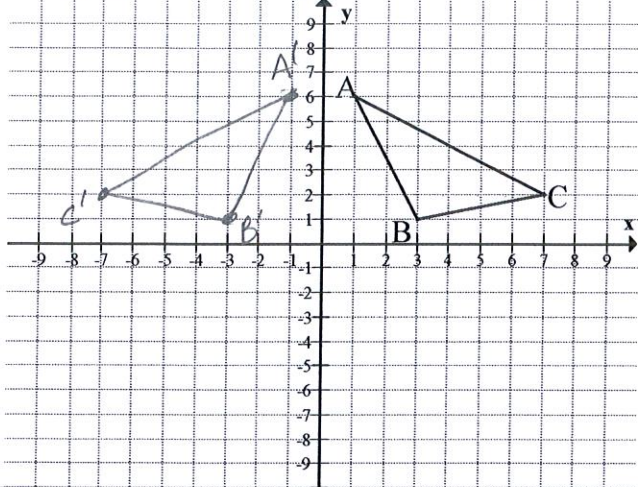
$$y=-x \quad (x,y) \rightarrow (-y,-x)$$

Key

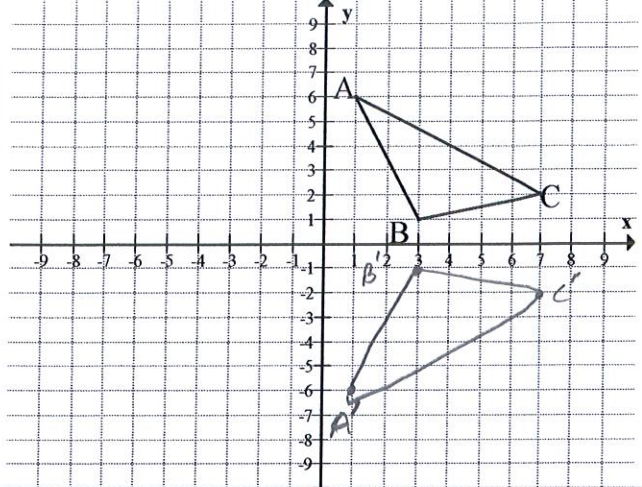
### Reflections Worksheet Wkst 2a

For #1-6, draw the triangle after each transformation and give the coordinates of A', B' and C'.

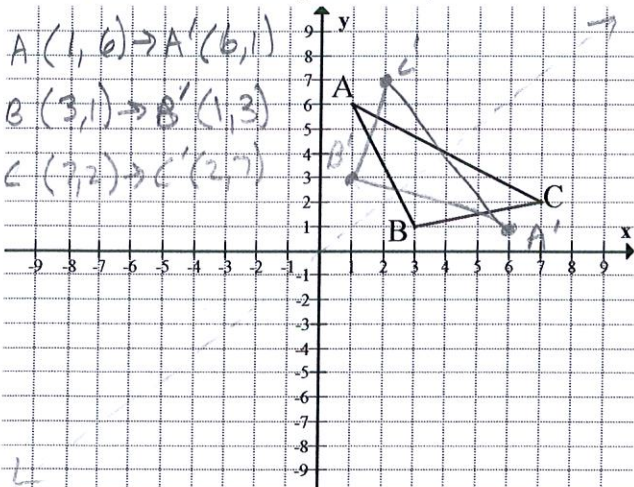
1. Reflect the triangle over the y-axis.



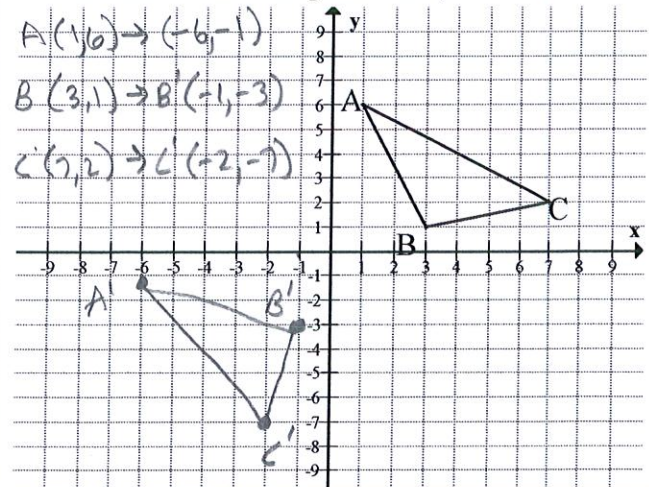
2. Reflect the triangle over the x-axis.



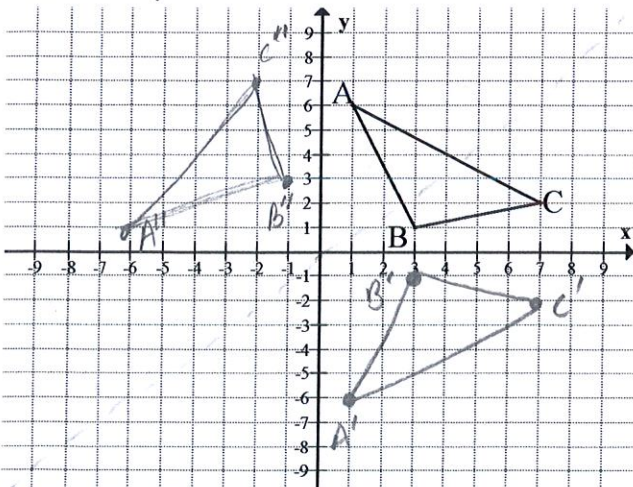
3. Reflect the triangle over  $y=x$ .



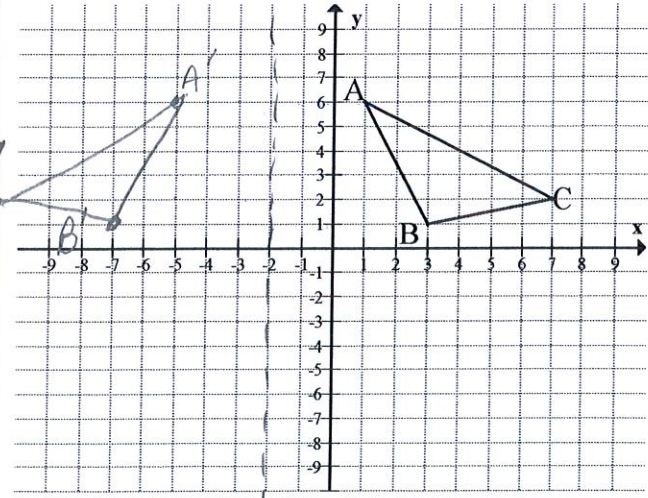
4. Reflect the triangle over  $y=-x$ .



5. Reflect the triangle over the x-axis and then over  $y=x$ .



6. Reflect the triangle over  $x=-2$ .



$$A'(1,-6) \rightarrow A''(-6,1)$$

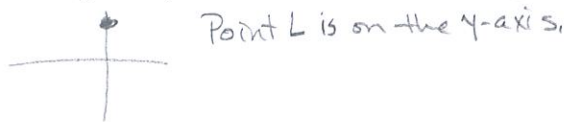
$$B'(3,-1) \rightarrow B''(-1,3)$$

$$C'(7,-2) \rightarrow C''(-2,7)$$

Complete.

7. After a reflection over the line  $y = x$ ,  $(8, 11)$  is the image of point C. What is the original location of point C?  $C(11, 8)$

8. After a reflection over the y-axis,  $(0, 4)$  is the image of point L. What is the original location of point L?  $L(0, 4)$



9. The reflection of  $J(-1, 11)$  is  $J'(-1, -11)$ . What is the reflection of  $D(5, -5)$  if the point is reflected across the same line?  $D'(5, 5)$

What is the line of reflection? Reflection over x-axis



10. The reflection of  $K(-2, 8)$  is  $K'(8, -2)$ . What is the reflection of  $L(10, -3)$  if the point is reflected across the same line?  $L'(-3, 10)$

What is the line of reflection? Reflection over  $y = x$

11. Given triangle JBN with coordinates  $J(4, 5)$ ,  $B(-1, -7)$ , and  $N(-7, 8)$ , find the image of point B after a reflection over the line  $y = x$ .  $B'(-7, -1)$

12. After a reflection over the x-axis,  $(5, 10)$  is the image of point N. What is the original location of point N?  $N(5, -10)$

13. Given triangle ONA with coordinates  $O(-4, 1)$ ,  $N(11, -12)$  and  $A(-7, -9)$ , find the image of point O after a reflection over the x-axis.  $O'(-4, -1)$

14. Given triangle UCJ with coordinates  $U(-12, 7)$ ,  $C(4, 2)$ , and  $J(-3, 9)$ , find the image of point C after a reflection over the y-axis.  $C'(-4, 2)$

15. The reflection of  $H(-10, -11)$  is  $H'(10, -11)$ . What is the reflection of  $N(8, 10)$ , if the point is reflected across the same line?  $N'(-8, 10)$

What is the line of reflection? Reflection over y-axis