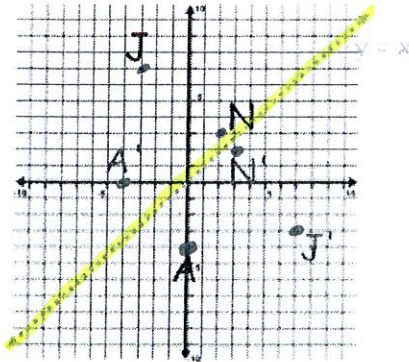


**Line of Reflection:  $y = x$**

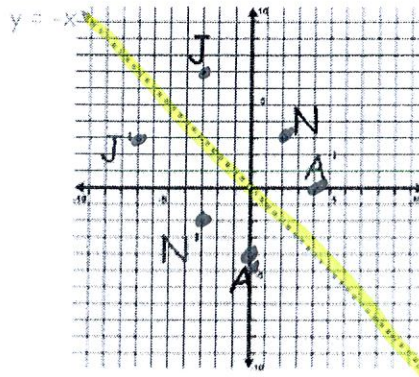
Pre-Image	Image
J (-3, 7)	J' (7, -3)
A (0, -4)	A' (-4, 0)
N (2, 3)	N' (3, 2)



When reflecting a point in the line  $y = x$ , what happens to the coordinates? They switch places  
 So,  $(x, y)$  becomes  $(y, x)$ .

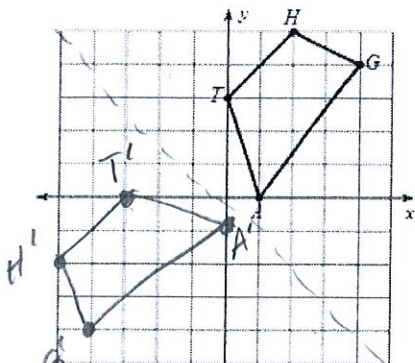
**Line of Reflection:  $y = -x$**

Pre-Image	Image
J (-3, 7)	J' (-7, 3)
A (0, -4)	A' (4, 0)
N (2, 3)	N' (-3, -2)



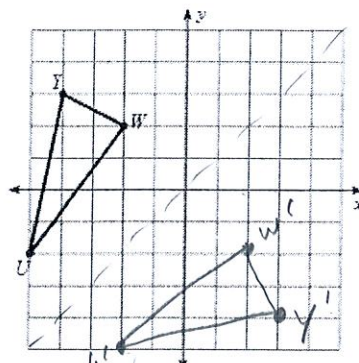
When reflecting a point in the line  $y = -x$ , what happens to the coordinates? They switch places & change signs  
 So,  $(x, y)$  becomes  $(-y, -x)$

**Ex. 1** Reflect over  $y = -x$ .



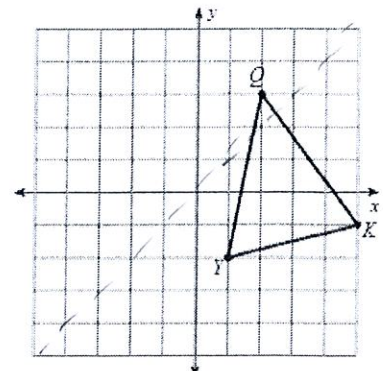
$A(1, 0) \rightarrow A'(0, -1)$   
 $T(0, 3) \rightarrow T'(-3, 0)$   
 $H(2, 5) \rightarrow H'(-5, -2)$   
 $G(4, 4) \rightarrow G'(-4, -4)$

**Ex. 2** Reflect over  $y = x$ .



$Y(-4, 3) \rightarrow Y'(3, -4)$   
 $U(-5, -2) \rightarrow U'(-2, -5)$   
 $W(-2, 2) \rightarrow W'(2, -2)$

**Ex. 3** Reflect over  $y = x$ .



$K(5, -1) \rightarrow K'(-1, 5)$   
 $Y(1, -2) \rightarrow Y'(-2, 1)$   
 $Q(2, 3) \rightarrow Q'(3, 2)$