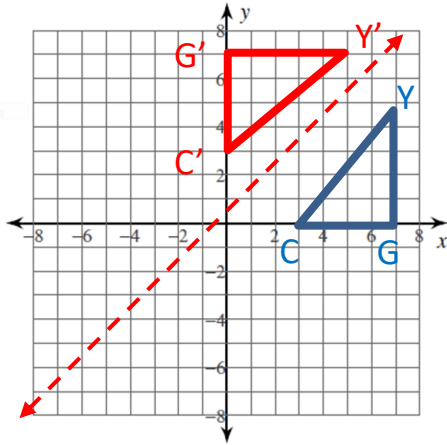


Coordinate Reflection Method: Demonstration Examples

a. Over the line $y = x$



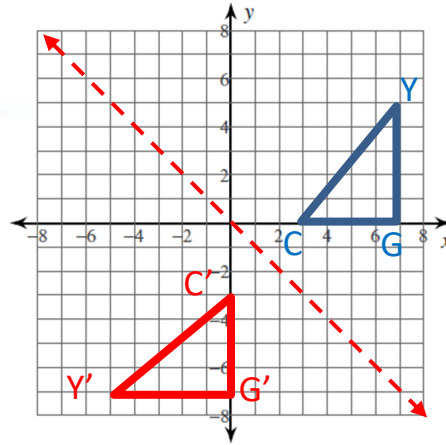
Notation:

$$R_{y=x} (\triangle CYG)$$

Preimage Coordinates → Image Coordinates

G: $(7, 0) \rightarrow G'(0, 7)$ * x and y coordinates switch
 Y: $(7, 5) \rightarrow Y'(5, 7)$
 C: $(3, 0) \rightarrow C'(0, 3)$

b. Over the line $y = -x$



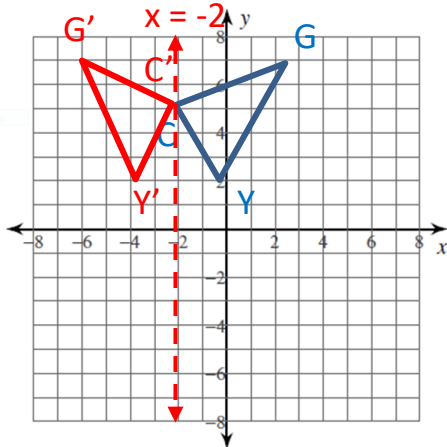
Notation:

$$R_{y=-x} (\triangle CYG)$$

Preimage Coordinates → Image Coordinates

G: $(7, 0) \rightarrow G'(0, -7)$ * switch x and y coordinates AND change signs
 Y: $(7, 5) \rightarrow Y'(-5, -7)$
 C: $(3, 0) \rightarrow C'(0, -3)$

c. Over the line $x = -2$



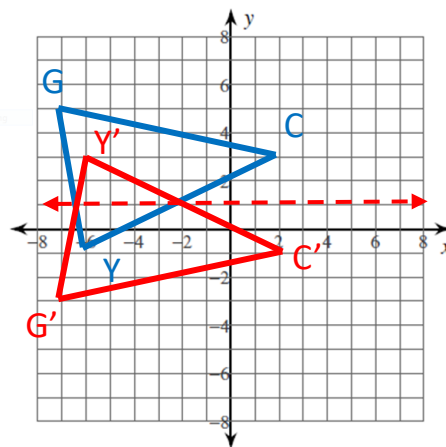
Notation:

$$R_{x=-2} (\triangle CYG)$$

Preimage Coordinates → Image Coordinates

G: $(0, 2) \rightarrow G'(-4, 2)$ * Count horizontal distance to the line and mirror on the opposite side
 Y: $(2, 7) \rightarrow Y'(-6, 7)$
 C: $(-2, 5) \rightarrow C'(-2, 5)$

e. Over the line $y = 1$



Notation:

$$R_{y=1} (\triangle CYG)$$

Preimage Coordinates → Image Coordinates

G: $(-7, 5) \rightarrow G'(-7, -3)$ * Count vertical distance to the line and mirror on the opposite side.
 Y: $(-6, -1) \rightarrow Y'(-6, 3)$
 C: $(2, 3) \rightarrow C'(2, -1)$

Coordinate Reflection Method:	Over the line $y = x$	Over the line $y = -x$
	$(x, y) \rightarrow (y, x)$	$(x, y) \rightarrow (-y, -x)$
	Other horizontal & vertical lines: Move an equal distance in opposite direction on the other side of the line	