

Reflections Vertical & Horizontal Lines

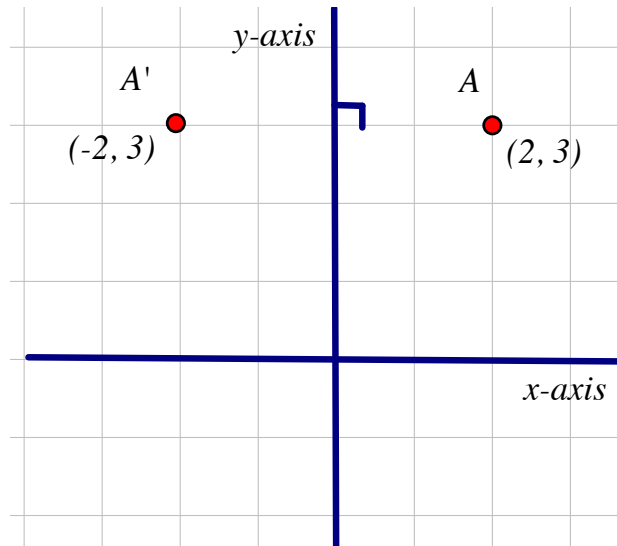
Notation

$$r_{y\text{-axis}}(x,y) \longrightarrow (-x, y)$$

This is read as “*reflection in the y-axis of (x, y) is mapped into $(-x, y)$.*”

Find $r_{y\text{-axis}}(2, 3)$

Using the definition above, we change the sign of the x-coordinate, $(-2, 3)$

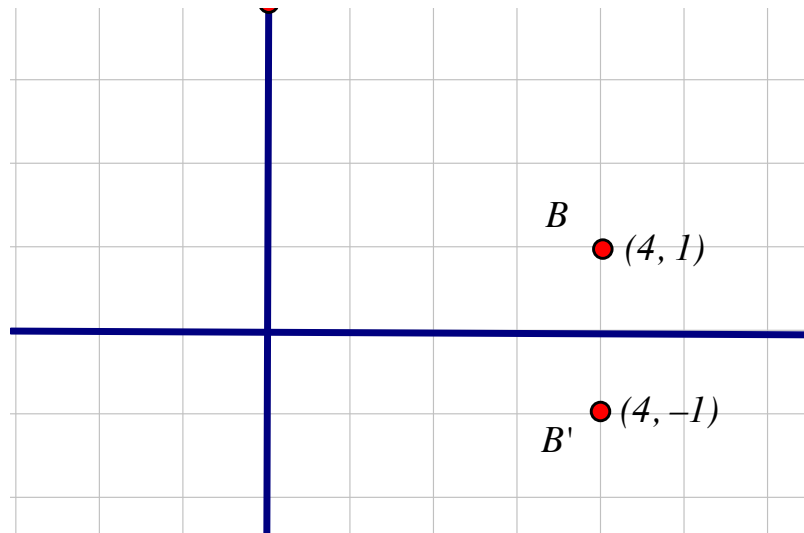


Find $r_{y\text{-axis}}$ $(-4, 5)$

Changing the sign of the x -coordinate, we have $(+4, 5)$

$$r_{x\text{-axis}} (x, y) \longrightarrow (x, -y)$$

Find $r_{x\text{-axis}}$ $(4, 1)$



$$\mathbf{r}_{y=x} (x, y) \longrightarrow (y, x)$$

That is, we simply **interchange** the x and y coordinates.

