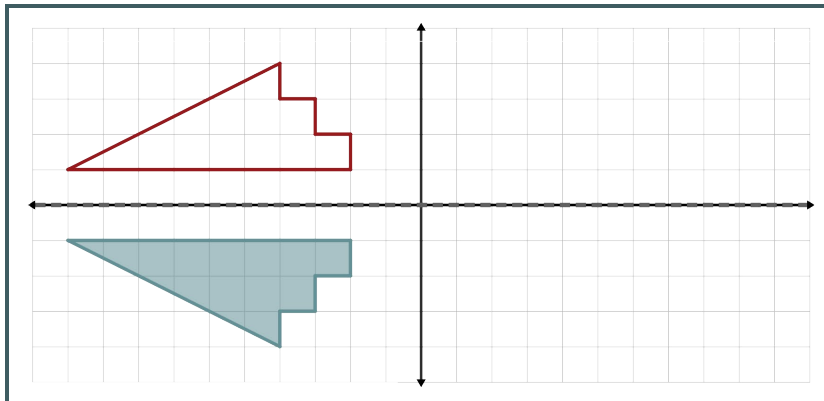


# REFLECTIONS: GUIDED NOTES

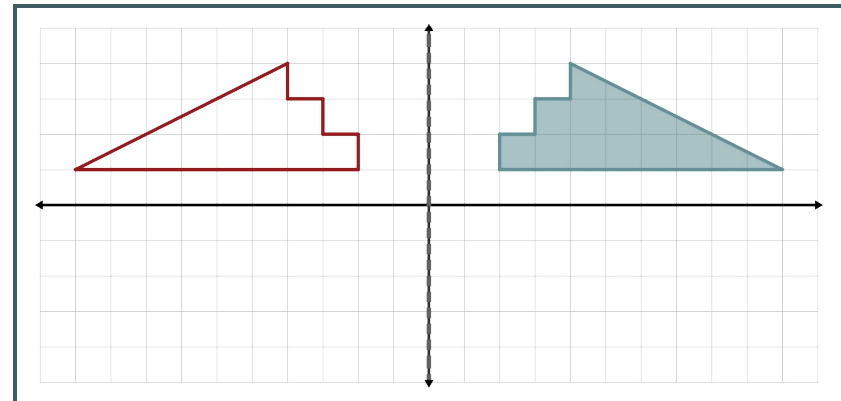
## Vocabulary

- reflection: a type of transformation that uses a *reflection line* like a mirror to create a mirror image; the figure is **flipped** over the *reflection line*

## Algebraic Rules



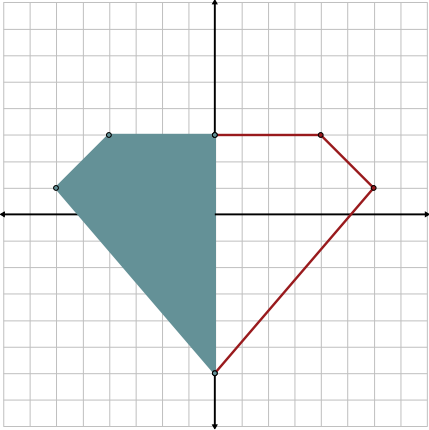
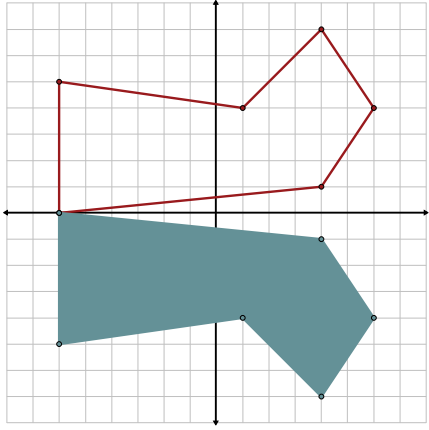
Reflected over...	Algebraic Rule
...the $x$ -axis	$(a, b) \rightarrow (a, -b)$



Reflected over...	Algebraic Rule
...the $y$ -axis	$(a, b) \rightarrow (-a, b)$

## Applying Algebraic Rules

Draw the image and complete the table below for each given unshaded preimage.

Graph	Verbal Description	Algebraic Rule
	<p><i>The preimage is reflected over the y-axis.</i></p>	$(x, y) \rightarrow (-x, y)$
	<p>The preimage is reflected over the x-axis.</p>	$(x, y) \rightarrow (x, -y)$