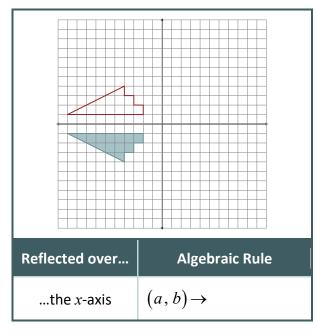# REFLECTIONS: GUIDED NOTES
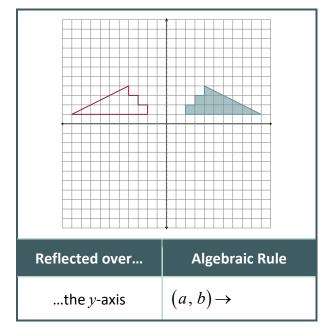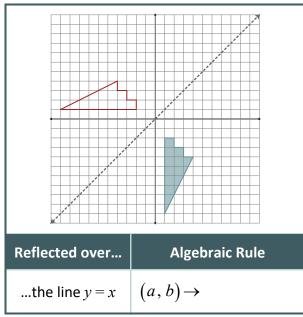
Vocabulary

- _____: 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*
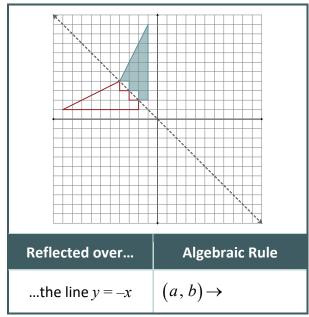
Is a reflection an example of rigid motion?

Special Reflections: Algebraic Rules

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

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

Reflected over…	Algebraic Rule
…the line *y = x*	$(a, b) \rightarrow$

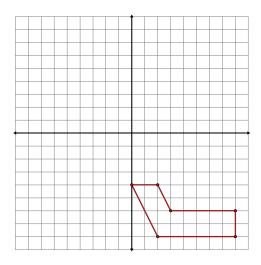| Reflected over…	Algebraic Rule
…the line *y = −x*	$(a, b) \rightarrow$

K20
L•E•A•R•N

Applying Algebraic Rules

1) Draw the image and complete the table below for the unshaded preimage.

Graph	Verbal Description	Algebraic Rule
	The preimage is reflected over the line $y = -x$.	

Other Reflections

2) What if we reflect an image over a different line? Reflect the following preimage over the line $y = -2$.

3) What if the preimage was not on the coordinate plane? How would we construct the image? Construct the image given the following preimage and line of reflection.