

Warm-Up:

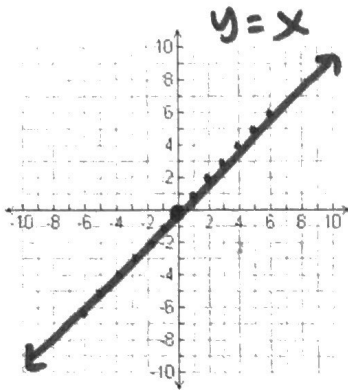
1)

$$y = mx + b$$

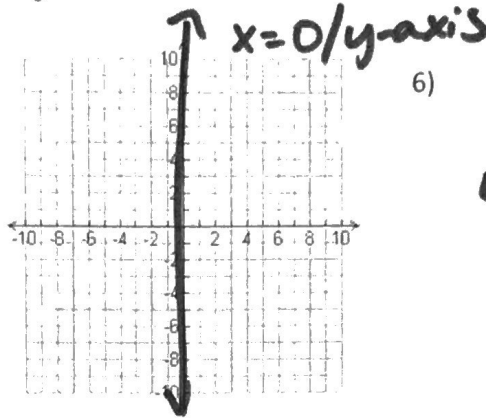
$\uparrow$  slope       $\uparrow$  y-int.

3)

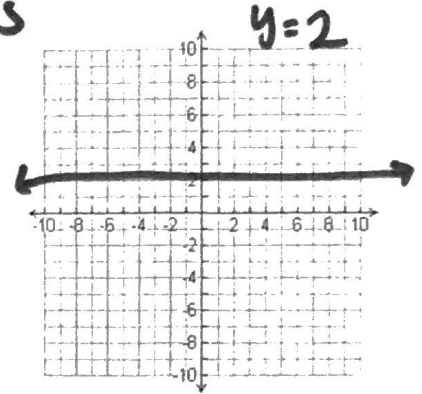
4)



5)



6)



Definition of a Reflection: transformation of a figure that creates a mirror image by 'flipping' the image over a line.

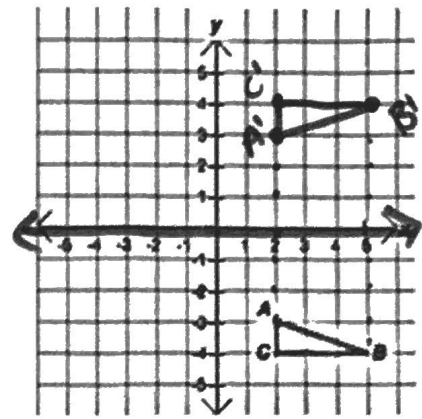
Graph	List the Pre-Image and Image Coordinates	What line did it reflect across?	Write a rule that describes this reflection.
	$W(1, -2) \rightarrow W'(1, 2)$ $A(3, -5) \rightarrow A'(3, 5)$ $G(4, -4) \rightarrow G'(4, 4)$ $R(3, -1) \rightarrow R'(3, 1)$	x-axis $(y=0)$	$(x, y) \rightarrow (x, -y)$ - x stays the same & y changes.
	$A(2, -4) \rightarrow A'(-2, -4)$ $P(1, 1) \rightarrow P'(-1, 1)$ $U(2, 2) \rightarrow U'(-2, 2)$ $H(4, -3) \rightarrow H'(-4, -3)$	y-axis $(x=0)$	$(x, y) \rightarrow (-x, y)$ - y stays the same & x changes.

- 1) Reflect  $\triangle ABC$  over the x-axis.

-count

- 2) Write a rule for this transformation.

$$(x, y) \rightarrow (x, -y)$$



- 3) Reflect  $\triangle JAI$  over the y-axis.

-count

- 4) What is the rule representing this transformation?

$$(x, y) \rightarrow (-x, y)$$

$$J(-5, 5) \rightarrow J'(5, 5)$$

$$A(-5, 1) \rightarrow A'(5, 1)$$

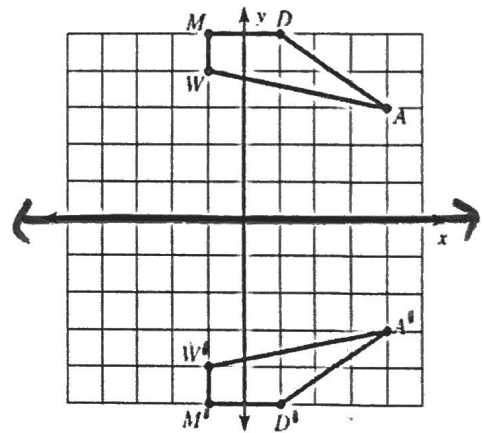
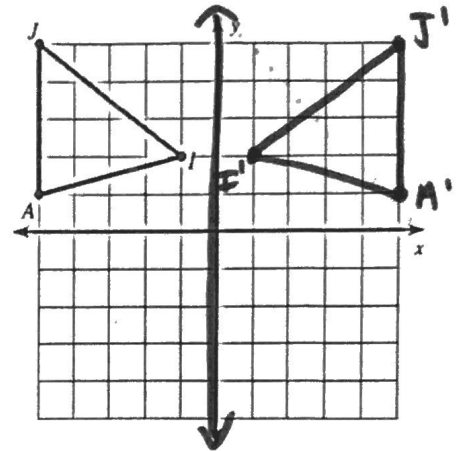
$$I(-1, 2) \rightarrow I'(1, 2)$$

- 5) What transformation has occurred in the figure?

Ref. x-axis

- 6) What is the rule that represents this transformation?

$$(x, y) \rightarrow (x, -y)$$



- 7)  $H(4, -3)$  is reflected to produce  $H'(-4, -3)$ . If the pre-image of A is located at  $(1, 3)$ , what is the ordered pair that represents the image of Point A using this same rule of transformation?

$$H(4, -3) \rightarrow H'(-4, -3)$$

Reflect over y-axis

$$(x, y) \rightarrow (-x, y)$$

$$A(1, 3) \rightarrow A'(-1, 3)$$

