

**Day 1**

# REFLECTIONS

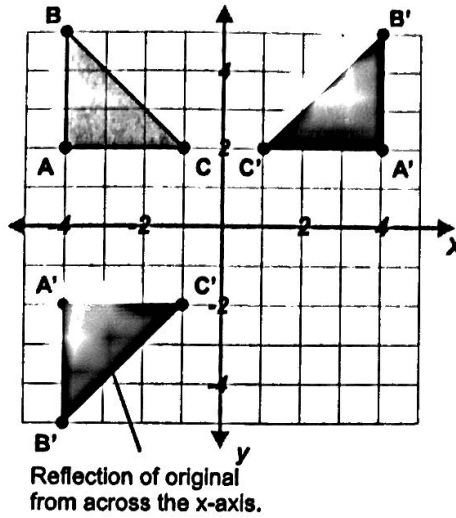
## Reflection across the x-axis.

When reflecting across the x-axis, using the original coordinates of your starting point, simply change the sign of the y-value. The x-value should remain the same for any point being reflected across the x-axis.

Example: Reflect figure ABC across the x-axis.

Original Points	Reflected Points
A(-4,2)	A'(-4,-2)
B(-4,5)	B'(-4,-5)
C(-1,2)	C'(-1,-2)

Notice the only thing that changed was the sign of the y-value.



## Reflection across the y-axis.

When reflecting across the y-axis, using the original coordinates of your starting point, simply change the sign of the x-value. The y-value should remain the same for any point being reflected across the y-axis.

Example: Reflect figure ABC across the y-axis.

Original Points	Reflected Points
A(-4,2)	A'(4,2)
B(-4,5)	B'(4,5)
C(-1,2)	C'(1,2)

Notice the only thing that changed was the sign of the x-value.

1) Reflect figure ABCD across the x-axis. Draw the reflected figure on the coordinate plane.

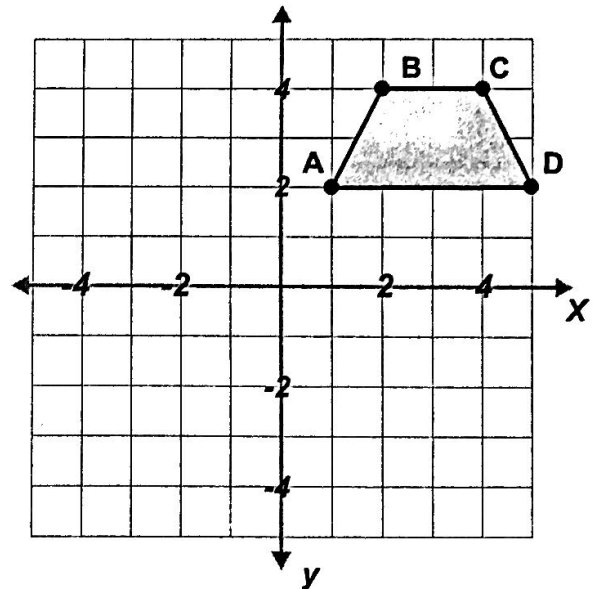
What are the new coordinates?

A'                  B'                  C'                  D'

2) Reflect figure ABCD across the y-axis. Draw the reflected figure on the coordinate plane.

What are the new coordinates?

A'                  B'                  C'                  D'



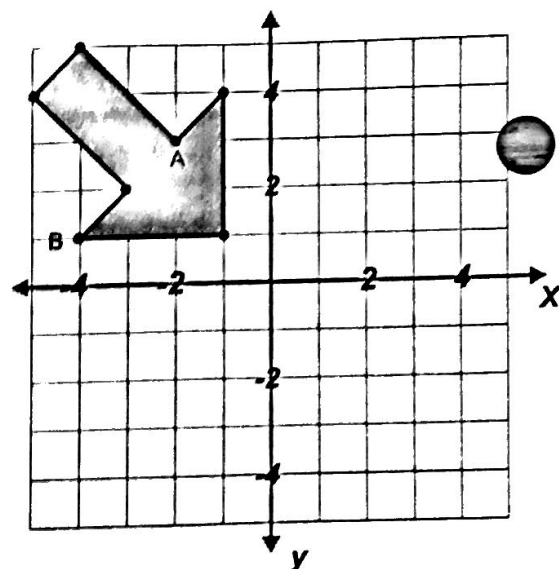
- 3) After reflecting figure ABCD across the x-axis, what quadrant did the figure end up in?      4) After reflecting figure ABCD across the y-axis, what quadrant did the figure end up in?

5) If the arrow is reflected across the y-axis, what will the new coordinates be of point A and point B?

A'            B'

6) If the arrow is reflected across the x-axis, what will the new coordinates be of point A and point B?

A'            B'



7) Reflect figure WXYZ across the y-axis. Draw the reflected figure on the coordinate plane.

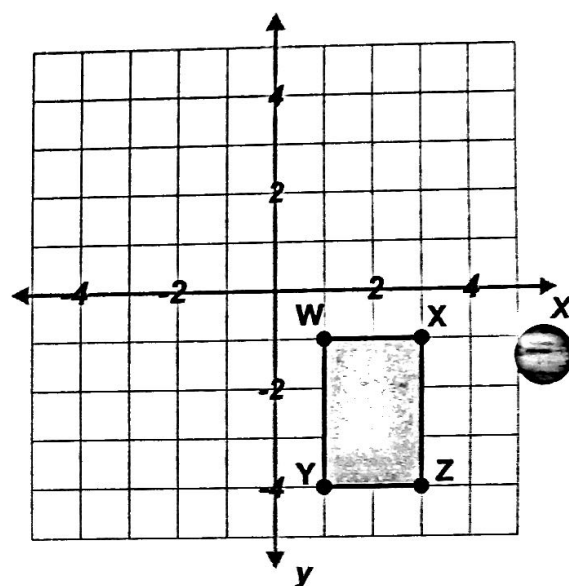
What are the new coordinates?

W'            X'            Y'            Z'

8) Reflect figure WXYZ across the X-axis. Draw the reflected figure on the coordinate plane.

What are the new coordinates?

W'            X'            Y'            Z'



9) Reflect triangle MNO across the y-axis. Draw the reflected figure on the coordinate plane.

What are the new coordinates?

M'            N'            O'

10) Reflect triangle MNO across the x-axis. Draw the reflected figure on the coordinate plane.

What are the new coordinates?

M'            N'            O'

