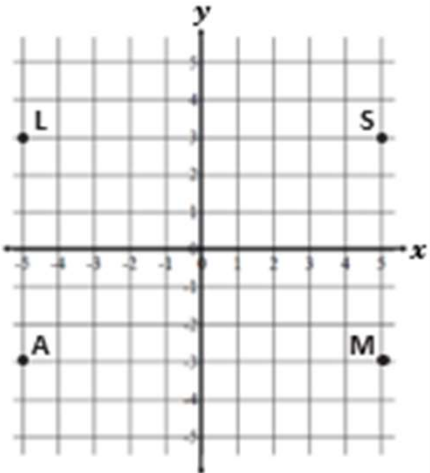


## Coordinate Geometry Worksheets

In each column, write the coordinates of the points that are related to the given point by the criteria listed in the first column of the table. Point  $S(5, 3)$  has been reflected over the  $x$ - and  $y$ -axes for you as a guide, and its images are shown on the coordinate plane. Use the coordinate grid to help you locate each point and its corresponding coordinates.

Given Point:	$S(5, 3)$	$(-2, 4)$	$(3, -2)$	$(-1, -5)$
The given point is reflected across the $x$ -axis.				
The given point is reflected across the $y$ -axis.				
The given point is reflected first across the $x$ -axis and then across the $y$ -axis.				
The given point is reflected first across the $y$ -axis and then across the $x$ -axis.				



1. When the coordinates of two points are  $(x, y)$  and  $(-x, y)$ , what line of symmetry do the points share? Explain.

2. When the coordinates of two points are  $(x, y)$  and  $(x, -y)$ , what line of symmetry do the points share? Explain.

## Coordinate Geometry Worksheets

In each column, write the coordinates of the points that are related to the given point by the criteria listed in the first column of the table. Point  $S(5, 3)$  has been reflected over the  $x$ - and  $y$ -axes for you as a guide, and its images are shown on the coordinate plane. Use the coordinate grid to help you locate each point and its corresponding coordinates.

Given Point:	$S(5, 3)$	$(-2, 4)$	$(3, -2)$	$(-1, -5)$	
The given point is reflected across the $x$ -axis.	$M(5, -3)$	$(-2, -4)$	$(3, 2)$	$(-1, 5)$	
The given point is reflected across the $y$ -axis.	$L(-5, 3)$	$(2, 4)$	$(-3, -2)$	$(1, -5)$	
The given point is reflected first across the $x$ -axis and then across the $y$ -axis.	$A(-5, -3)$	$(2, -4)$	$(-3, 2)$	$(1, 5)$	
The given point is reflected first across the $y$ -axis and then across the $x$ -axis.	$A(-5, -3)$	$(2, -4)$	$(-3, 2)$	$(1, 5)$	

1. When the coordinates of two points are  $(x, y)$  and  $(-x, y)$ , what line of symmetry do the points share? Explain.

*They share the  $y$ -axis because the  $y$ -coordinates are the same and the  $x$ -coordinates are opposites, which means the points will be the same distance from the  $y$ -axis but on opposite sides.*

2. When the coordinates of two points are  $(x, y)$  and  $(x, -y)$ , what line of symmetry do the points share? Explain.

*They share the  $x$ -axis because the  $x$ -coordinates are the same and the  $y$ -coordinates are opposites, which means the points will be the same distance from the  $x$ -axis but on opposite sides.*

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