

Name _____ Date _____

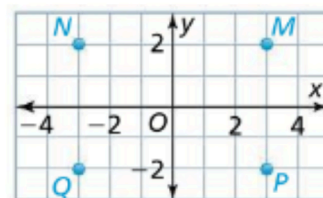
Coordinate Plane: Reflections

How are points $N(-3, 2)$, $P(3, -2)$, and $Q(-3, -2)$ related to point $M(3, 2)$?

Point $N(-3, 2)$ and point $M(3, 2)$ differ only in the sign of the x -coordinate. They are reflections of each other across the y -axis.

Point $P(3, -2)$ and point $M(3, 2)$ differ only in the sign of the y -coordinate. They are reflections of each other across the x -axis.

Point $Q(-3, -2)$ and point $M(3, 2)$ differ in the signs of the x -coordinate and y -coordinate. They are reflections of each other across *both* axes.



Be Precise A reflection is a mirror image across a line. © MP.6

For the following points, draw each reflection and label it with the given letter. Then, write the coordinates of the reflected point.

Original Point	Reflection over the x -axis	Reflection over the y -axis	Reflection over both axes
A (3 , 4)	B	C	D
E (-6 , 5)	F	G	H
J (-2 , -3)	K	L	M
P (1 , -7)	Q	S	T

