Reflect Points Across Axes — Homework

Lesson 7-9 • Standard 6.NOS.7

Name: _____ **Period:** _____ **Date:** _____

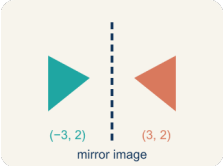
Today's Goals

Content: I can reflect points across the x-axis and y-axis on the coordinate plane.
Language: I can explain my work using the words reflection, x-axis, y-axis, and symmetry.

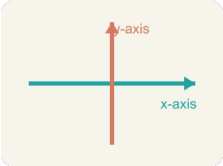
Key Words



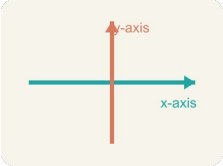
Reflect Points Across Axes (Reflejar puntos sobre los ejes) — Flip a point across an axis so it stays the same perpendicular distance from that axis.



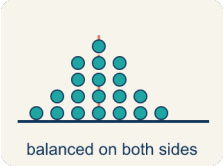
Reflection (Reflexión) — A flipped, mirror image across a line.



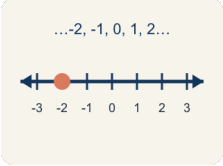
x-axis (Eje x) — The line that goes across the grid. Flipping over it changes the y sign.



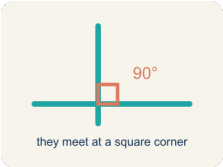
y-axis (Eje y) — The line that goes up the grid. Flipping over it changes the x sign.



Symmetry (Simetría) — When a shape looks the same on both sides of a line.



Integer (Número entero) — Whole numbers and their opposites, like -2, -1, 0, 1, 2.



Perpendicular (Perpendicular) — Two lines that meet to make a square corner (90 degrees).

Practice

Show your work. Use the blank space under each problem.

1. What is the reflection of (4, -3) over the x-axis?

A. (-4, -3)
B. (-4, 3)
C. (3, -4)
D. (4, 3)

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2. What is the reflection of (-2, 6) over the y-axis?

A. (-2, -6)
B. (2, 6)
C. (2, -6)
D. (6, -2)

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3. Find the reflection of each point over the given axis.

Original Point	Axis	Reflected Point
(3, -7)	x-axis	
(-5, 2)	y-axis	
(8, -1)	x-axis	
(-4, -6)	y-axis	
(0, 9)	x-axis	
(-3, 0)	y-axis	

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4. Match each reflection rule to its description.

Item	Answer choices
____ Over x-axis	F. Reflects to itself over any axis
____ Over y-axis	E. Reflects to itself over y-axis
____ Over both axes	D. Reflects to itself over x-axis
____ Point on x-axis	C. Both coordinates change sign
____ Point on y-axis	B. x-coordinate changes sign
____ (0, 0)	A. y-coordinate changes sign

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5. Point A is at (-3, 5). It is reflected over the x-axis to A', then A' is reflected over the y-axis to A''. What are the coordinates of A''?

A. (-3, -5)
B. (-3, 5)
C. (3, -5)
D. (3, 5)

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6. Spot the Common Mistake

Step 1 (Problem): Reflect the point (-3, -8) over the x-axis.

Step 2 (Attempt): Both coordinates are negative, so I will flip the x-coordinate: -3 becomes 3. The answer is (3, -8).

Step 3 (Check): Folding over the horizontal x-axis should send the point up across the axis, but this answer kept it below the axis.

Which step has the mistake? Explain and fix it:

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7. Captain Vega folds the map along the x-axis. A marker at (7, 2) lands on its mirror image. What are the new coordinates?

A. (-7, 2)
B. (-7, -2)
C. (2, 7)
D. (7, -2)

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8. A buried chest is marked at (-5, 3). Vega folds the map along the y-axis to find its mirror twin. Where is the twin?

A. (-5, -3)
B. (3, -5)

C. (5, 3)
D. (5, -3)

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9. Vega reflects a palm-tree marker at (8, -6) across the x-axis. Which coordinate changes its sign?

A. The x-coordinate
B. The y-coordinate
C. Both coordinates
D. Neither coordinate

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10. Match each map marker and fold line to its mirror image.

Item	Answer choices
____ (1, 7) folded over x-axis	D. (1, -6)
____ (-8, 2) folded over y-axis	C. (9, 3)
____ (9, -3) folded over x-axis	B. (8, 2)
____ (-1, -6) folded over y-axis	A. (1, -7)
