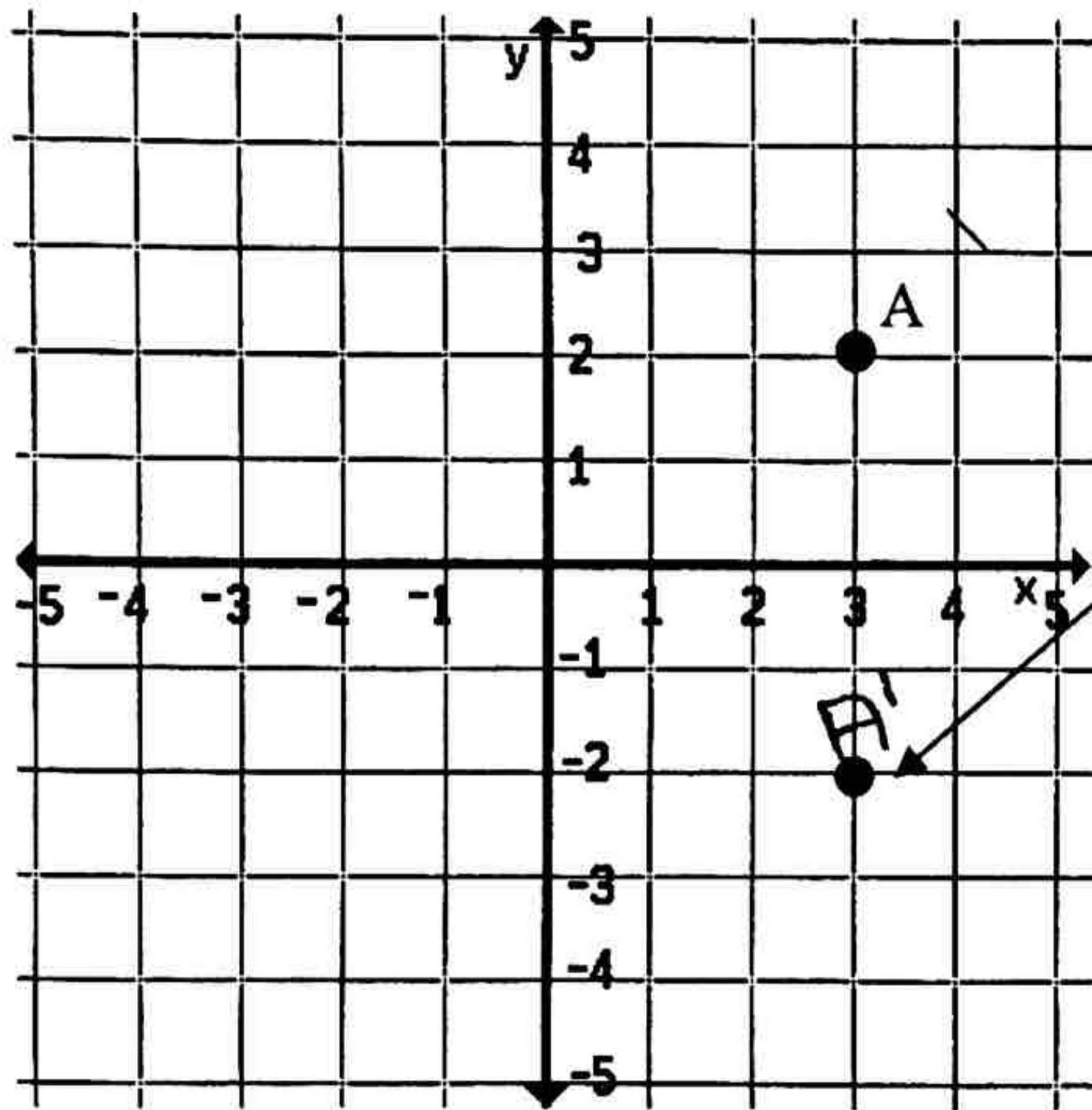# Guided Reflection Notes
Reflecting a point over the *x*- or *y*-axis

Reflecting over the *x*-axis: A' = A prime

Write down the ordered pair for A.
If A is reflected across the x- axis, what would be the new point on the graph?
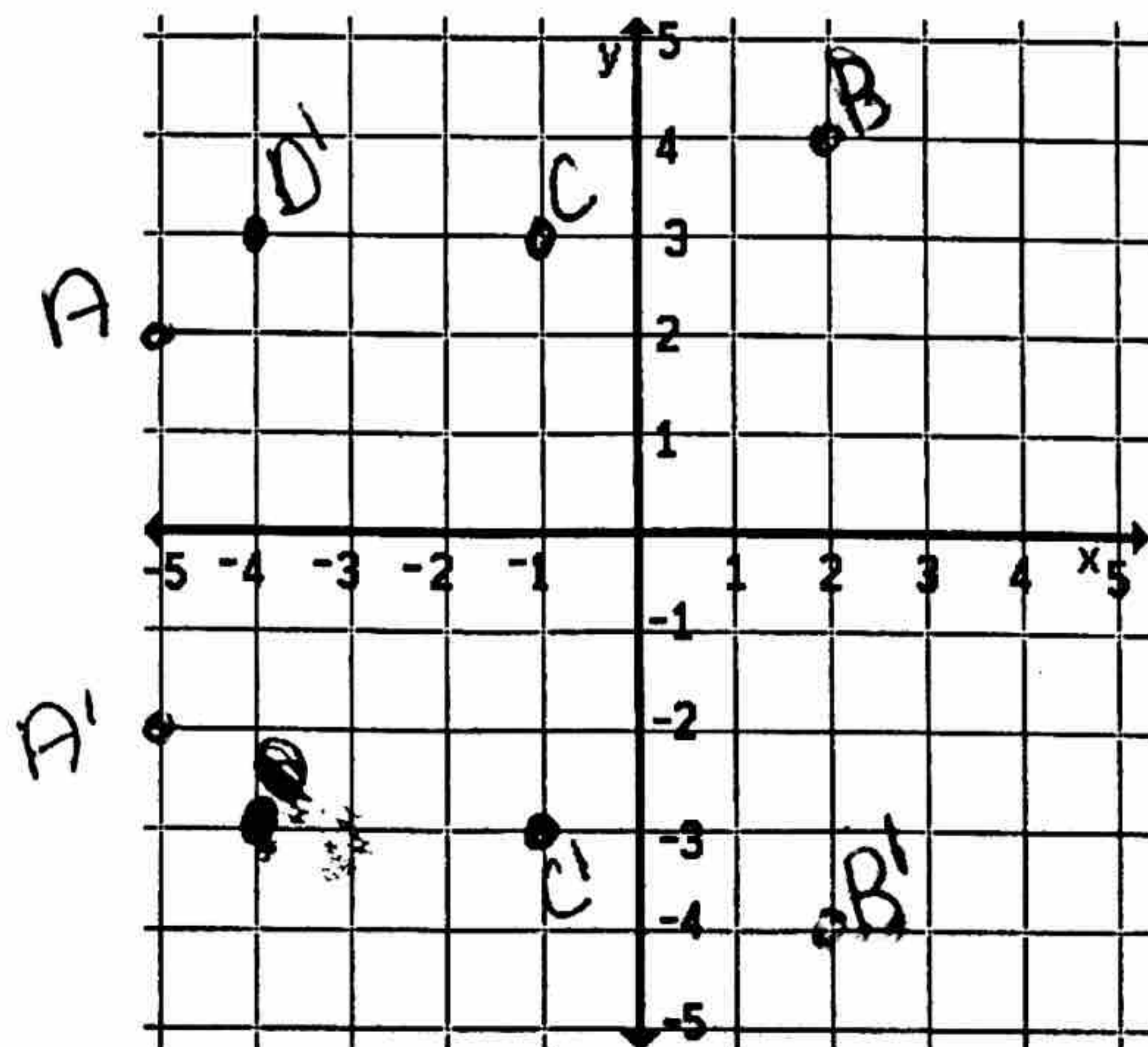Label this point.

A(3,2) A'(3,-2)

Look at both points, what observations can you make about the two points.

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Reflecting over the *x*-axis rule: X-value stays the same the Signs of the y-value change to the opposite
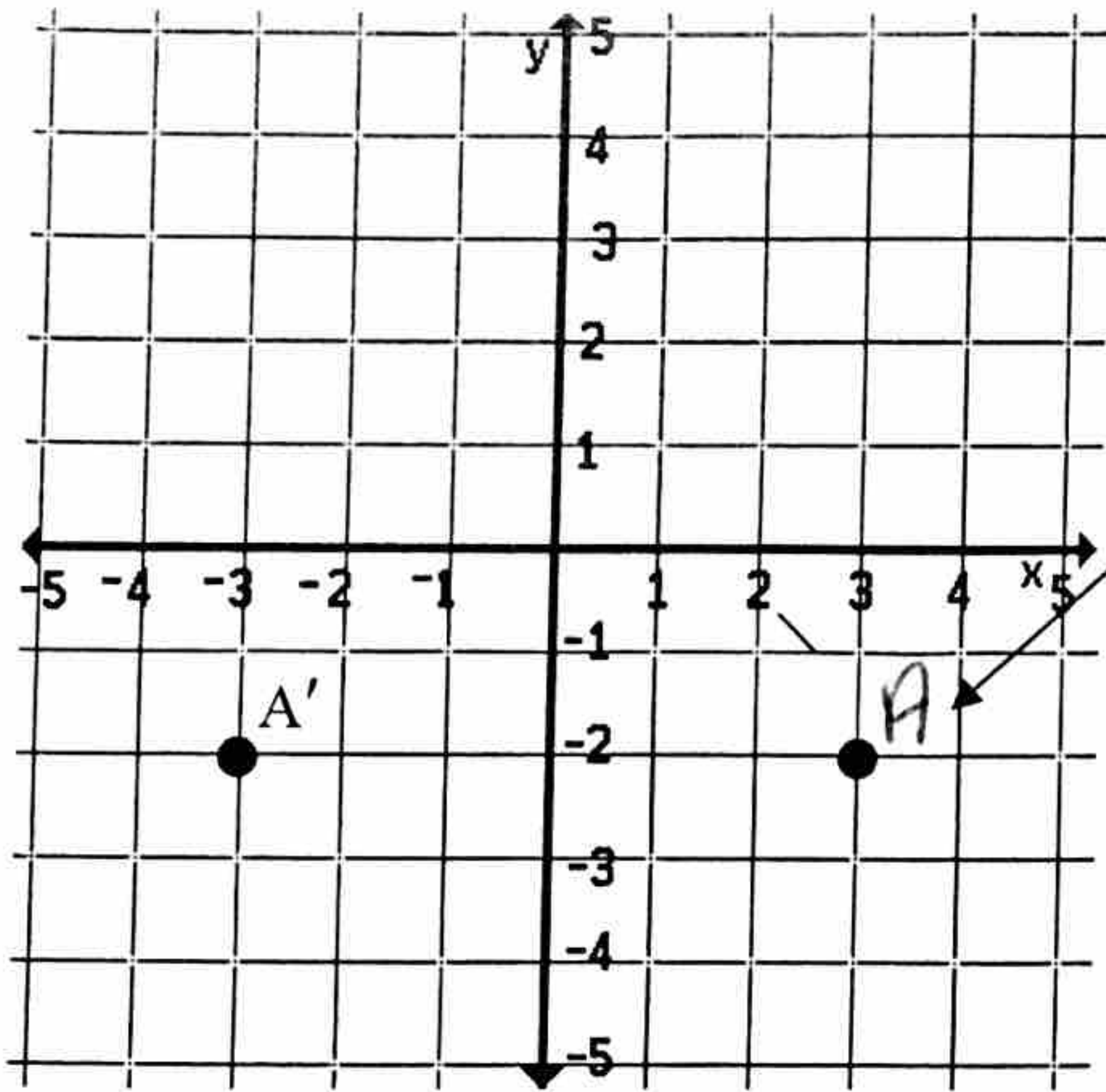
Try it:

Graph the following points in the correct quadrant of the coordinate plane. If the point is reflected across the *x*-axis, what are the coordinates of the reflected points? What similarities are between coordinates of the original point and reflected point?

A (-5, 2) ⟶ (-5, 2)
B (2, 4) ⟶ (2, -4)
C (-1, 3) ⟶ (-1, -3)
D (-4, -3) ⟶ (-4, 3)

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Reflecting over the *y*-axis:

Write down the ordered pair for A.
If A is reflected across the y- axis, what would be the new point on the graph?
Label this point.

$A(3, -2)$ $A'(-3, -2)$

Look at both points, what observations can you make about the two points.

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Reflecting over the *y*-axis rule: _the y-value stays the same the sign of the x-value changes to the opposite._

Try it:

Graph the following points in the correct quadrant of the coordinate plane. If the point is reflected across the *y*-axis, what are the coordinates of the reflected points? What similarities are between coordinates of the original point and reflected point?

A (-5, 2) ⟶ (5, 2)
B (2, 4) ⟶ (-2, 4)
C (-1, 3) ⟶ (+1, 3)
D (-4, -3) ⟶ (4, -3)

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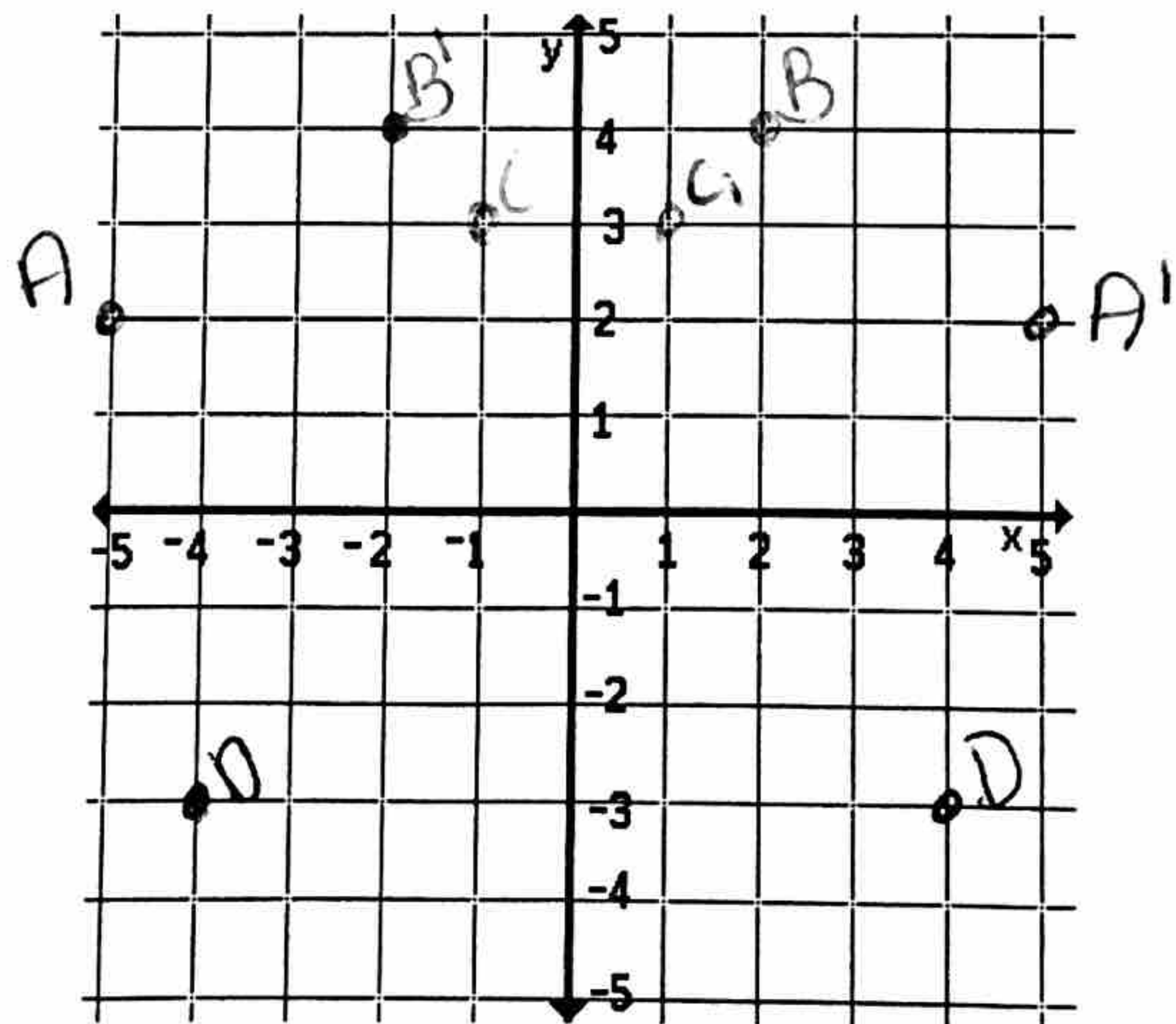
What do you think happens to the following point if it starts at (2, -4) and ends at (-2, 4)?

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