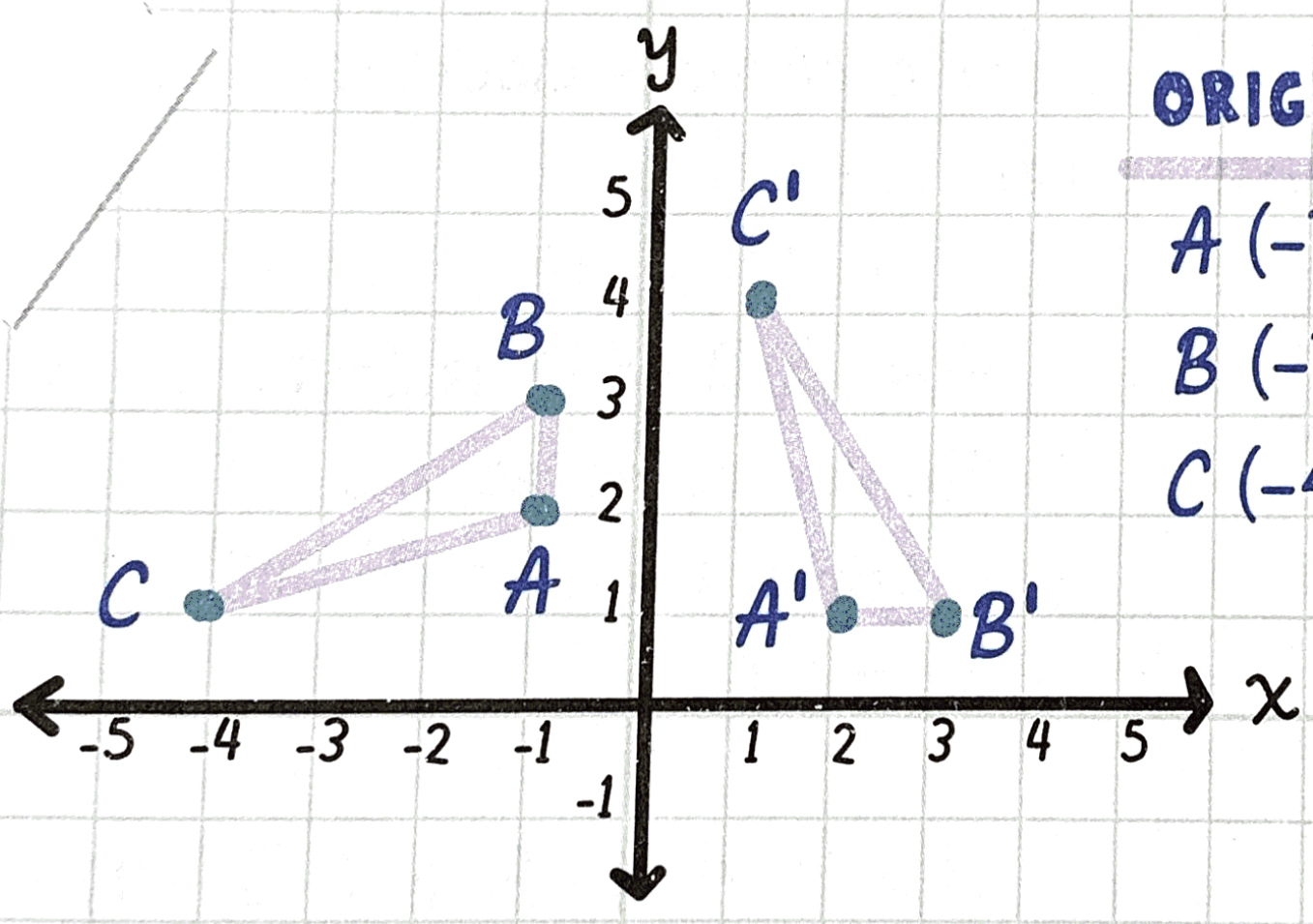
So this means that $ABC$ was rotated $90°$ in a counterclockwise direction to form $A'B'C$. Also, the two triangles are congruent—the corresponding sides are the same length and the corresponding angles are the same degrees.

Rotations can also be performed on a coordinate plane. Usually, the origin $(0,0)$ will be the center of rotation.

**EXAMPLE:** Rotate $\triangle ABC$ $90°$ clockwise.

THIS COULD ALSO BE A 270° COUNTERCLOCKWISE ROTATION--YOU END UP AT THE SAME PLACE.




| ORIGINAL | IMAGE |
|---|---|
| $A\ (-1, 2)$ | $A'\ (2, 1)$ |
| $B\ (-1, 3)$ | $B'\ (3, 1)$ |
| $C\ (-4, 1)$ | $C'\ (1, 4)$ |

What happened? The $x$- and $y$-coordinates swapped places and then took the appropriate signs for quadrant I.

**SHORTCUT:** Every time a figure rotates $90°$, the figure moves one quadrant and the coordinates swap places and take the signs of the quadrant.