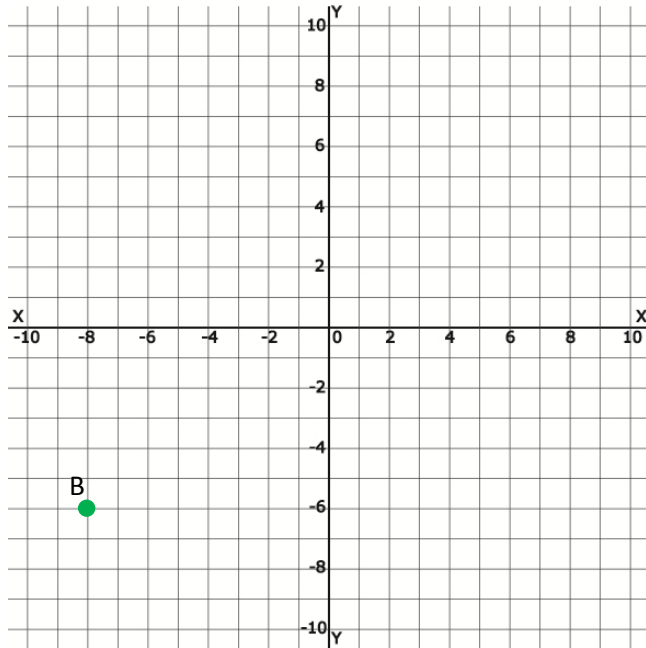


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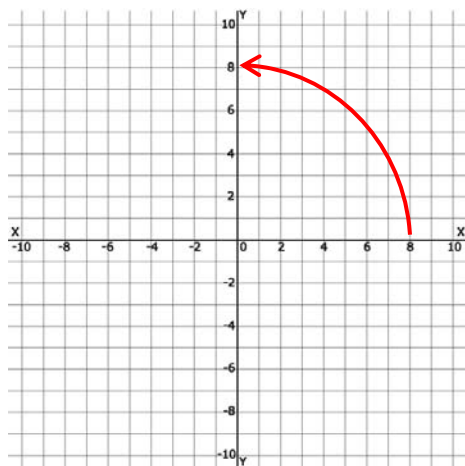
## Drawing Transformed Figures - Step-by-Step Lesson

Graph the image of B (-8, -6) after a rotation  $90^\circ$  counterclockwise around the origin.



### Explanation:

Step 1) A rotation turns a figure around a fixed point.  $90^\circ$  is  $\frac{1}{4}$  of a full turn. The rotation will turn the point  $\frac{1}{4}$  of a full turn in the counterclockwise direction. The diagram below shows a  $90^\circ$  counterclockwise rotation about the origin.



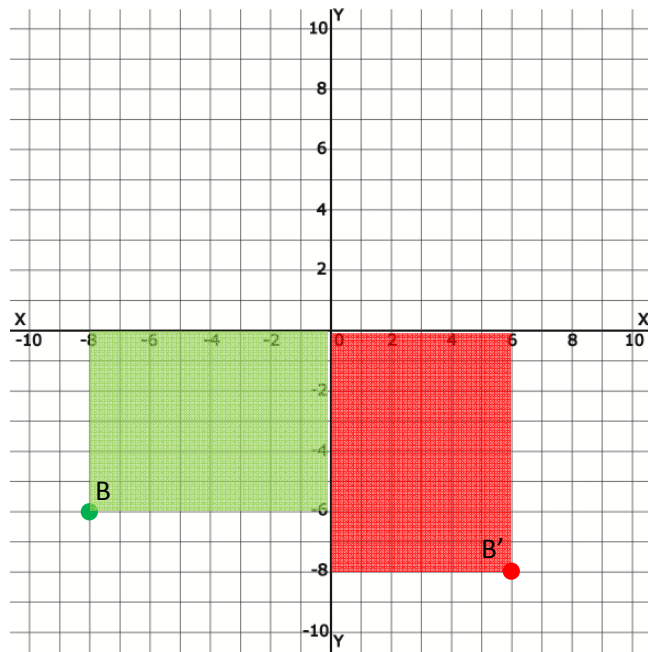
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Step 2) Instead of starting from the origin, we start from the position of the point itself  $(-8, -6)$ .

Rotate the point  $90^\circ$  counterclockwise (left to right) around the origin. The point will move from Quadrant III to Quadrant IV.

To find the exact location, imagine  $(0, 0)$  and B forming opposite corners of a box. Rotate the box, keeping the  $(0, 0)$  corner fixed.



Step 3) The rotated point is  $B'(6, -8)$ .

