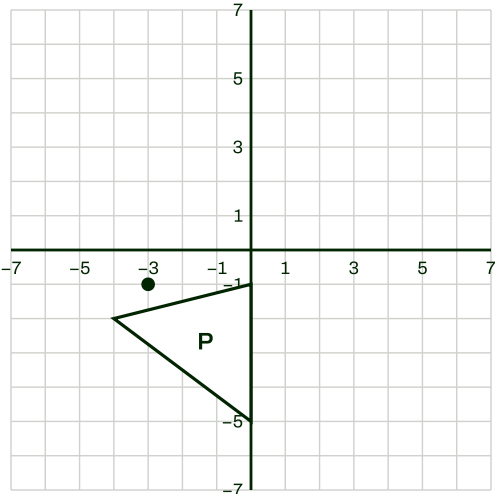


Rotate a figure about a point other than the origin

NAME	DATE	SCORE / 10
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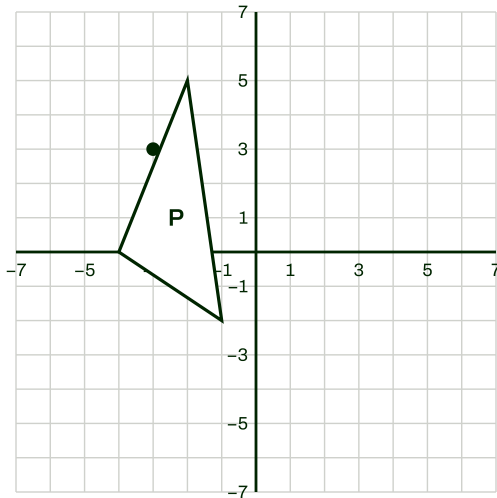
1

Triangle P, with vertices $(-4, -2)$, $(0, -5)$ and $(0, -1)$, and the point $(-3, -1)$ are shown on the coordinate plane below. Triangle P is rotated 180° about the point $(-3, -1)$. What are the coordinates of the image of the vertex $(-4, -2)$?



2

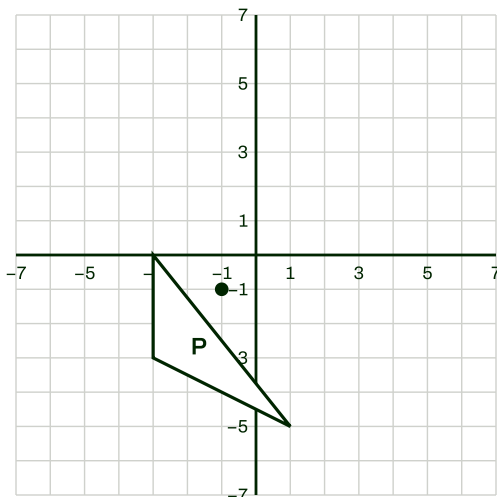
Triangle P, with vertices $(-2, 5)$, $(-1, -2)$ and $(-4, 0)$, and the point $(-3, 3)$ are shown on the coordinate plane below. Triangle P is rotated 90° counterclockwise about the point $(-3, 3)$. Ana says the image of the vertex $(-2, 5)$ is $(-5, -2)$. Is Ana right?



- ☐ Yes
 ☐ No: the image is $(-1, 2)$
 ☐ No: the image is $(-5, 4)$

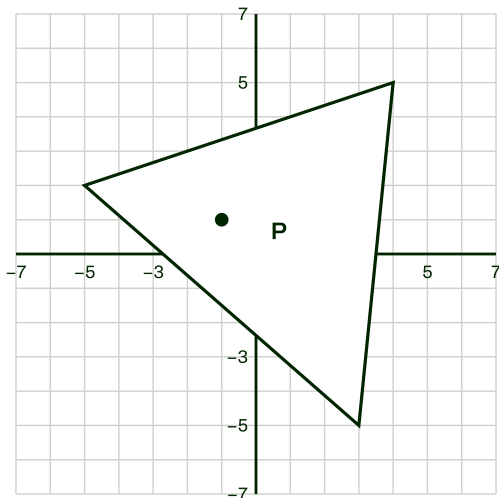
3

Triangle P, with vertices $(-3, -3)$, $(-3, 0)$ and $(1, -5)$, and the point $(-1, -1)$ are shown on the coordinate plane below. Triangle P is rotated 90° clockwise about the point $(-1, -1)$. What are the coordinates of the image of the vertex $(1, -5)$?



4

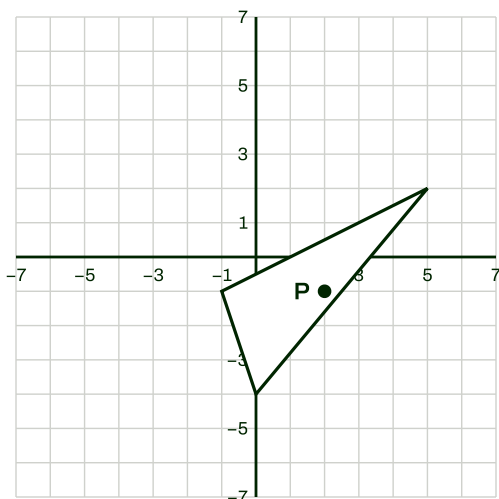
Triangle P, with vertices $(4, 5)$, $(3, -5)$ and $(-5, 2)$, and the point $(-1, 1)$ are shown on the coordinate plane below. Triangle P is rotated 90° counterclockwise about the point $(-1, 1)$. Dev says the image of the vertex $(4, 5)$ is $(-5, 6)$. Is Dev right?



- ☐ No: the image is $(3, -4)$
 ☐ No: the image is $(-5, 4)$
 ☐ Yes

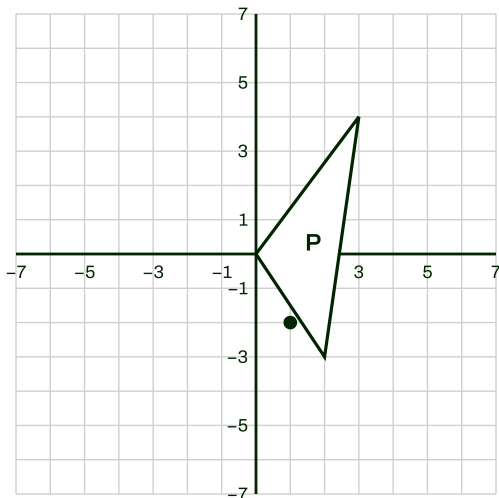
5

Triangle P, with vertices $(5, 2)$, $(0, -4)$ and $(-1, -1)$, and the point $(2, -1)$ are shown on the coordinate plane below. Triangle P is rotated 90° counterclockwise about the point $(2, -1)$. What are the coordinates of the image of the vertex $(0, -4)$?



6

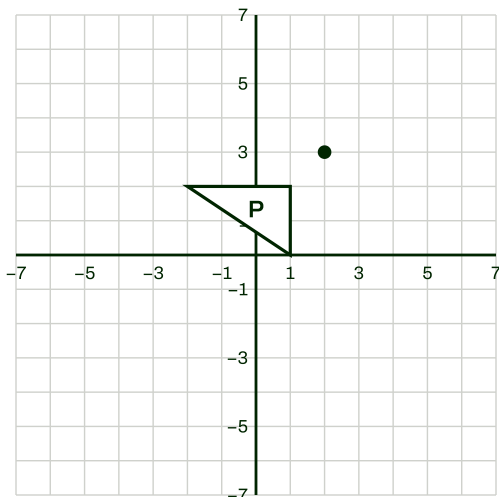
Triangle P, with vertices $(0, 0)$, $(2, -3)$ and $(3, 4)$, and the point $(1, -2)$ are shown on the coordinate plane below. Triangle P is rotated 90° clockwise about the point $(1, -2)$. Leo says the image of the vertex $(3, 4)$ is $(4, -3)$. Is Leo right?



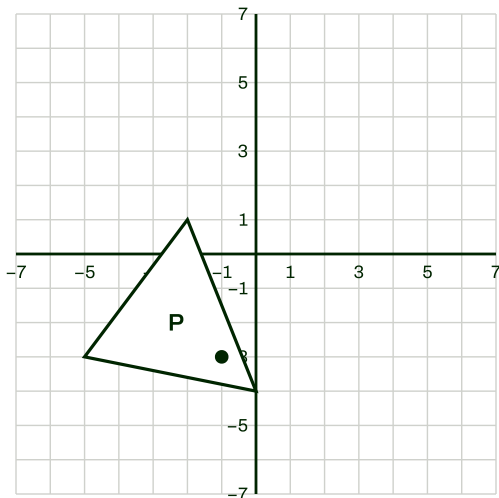
- ☐ Yes
 ☐ No: the image is $(-5, 0)$
 ☐ No: the image is $(7, -4)$

7

Triangle P, with vertices $(1, 0)$, $(-2, 2)$ and $(1, 2)$, and the point $(2, 3)$ are shown on the coordinate plane below. Triangle P is rotated 90° clockwise about the point $(2, 3)$. What are the coordinates of the image of the vertex $(-2, 2)$?

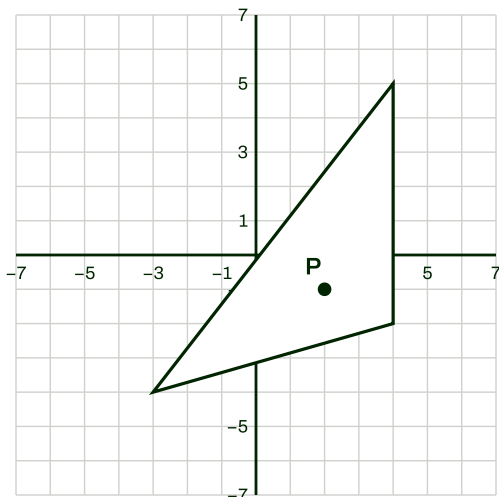


- 8** Triangle P, with vertices $(0, -4)$, $(-5, -3)$ and $(-2, 1)$, and the point $(-1, -3)$ are shown on the coordinate plane below. Triangle P is rotated 90° clockwise about the point $(-1, -3)$. Leo says the image of the vertex $(0, -4)$ is $(-4, 0)$. Is Leo right?

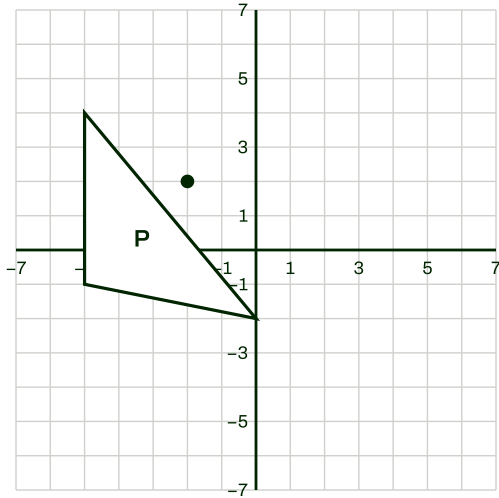


☐ No: the image is $(-2, -4)$ ☐ No: the image is $(0, -2)$ ☐ Yes

- 9** Triangle P, with vertices $(-3, -4)$, $(4, -2)$ and $(4, 5)$, and the point $(2, -1)$ are shown on the coordinate plane below. Triangle P is rotated 90° counterclockwise about the point $(2, -1)$. What are the coordinates of the image of the vertex $(4, 5)$?



- 10** Triangle P, with vertices $(0, -2)$, $(-5, 4)$ and $(-5, -1)$, and the point $(-2, 2)$ are shown on the coordinate plane below. Triangle P is rotated 90° clockwise about the point $(-2, 2)$. Leo says the image of the vertex $(-5, 4)$ is $(4, 5)$. Is Leo right?



- ☐ Yes
 ☐ No: the image is $(0, 5)$
 ☐ No: the image is $(-4, -1)$

Rotate a figure about a point other than the origin

1 $(-2, 0)$

3 $(-5, -3)$

5 $(5, -3)$

7 $(1, 7)$

9 $(-4, 1)$

2 No: the image is $(-5, 4)$

4 Yes

6 No: the image is $(7, -4)$

8 No: the image is $(-2, -4)$

10 No: the image is $(0, 5)$