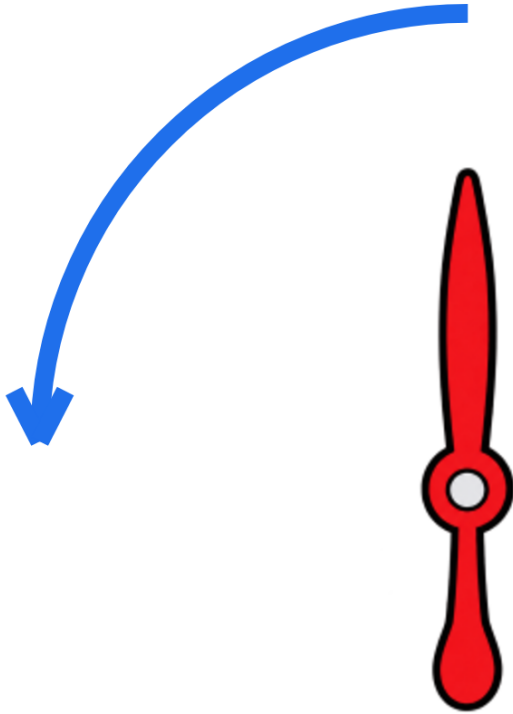


Rotate figures about the origin

1

Which picture shows the object after a quarter turn counter-clockwise?



A



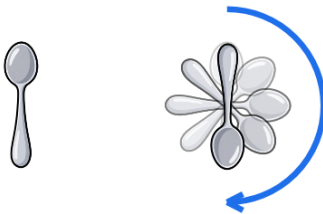
B



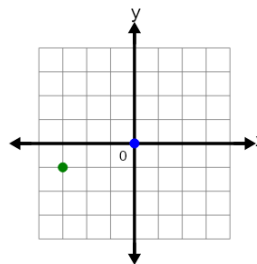
C

**2**

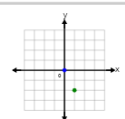
How far and which way has the object turned?



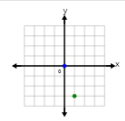
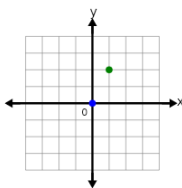
- A Full turn clockwise B Half turn clockwise C Quarter turn clockwise D Half turn counter-clockwise

3Rotate this point by 90° counter-clockwise about the origin

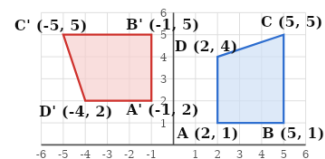
A



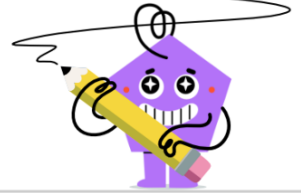
B

**4**Rotate this point by 90° clockwise about the origin

- A (1,2) B (2,-1)

5The quadrilateral ABCD is rotated 270° clockwise about the origin to give quadrilateral A'B'C'D'. Which coordinate rule describes this rotation?

- A $(x, y) \rightarrow (y, -x)$ B $(x, y) \rightarrow (-y, x)$ C $(x, y) \rightarrow (-x, -y)$



Rotate figures about the origin

6

A rotation about the origin uses the coordinate rule $(x, y) \rightarrow (-y, x)$. Which rotation does this represent?

- A 270° clockwise
- B 270° counter-clockwise
- C 180°

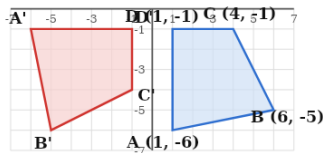
7

A shape is rotated 270° counter-clockwise about the origin. Which coordinate rule describes this rotation?

- A $(x, y) \rightarrow (-x, -y)$
- B $(x, y) \rightarrow (-y, x)$
- C $(x, y) \rightarrow (y, -x)$

8

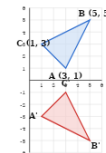
The quadrilateral ABCD is rotated 270° counter-clockwise about the origin using the rule $(x, y) \rightarrow (y, -x)$ to give quadrilateral A'B'C'D'. What are the coordinates of B'?



- A (5, 6) B (-5, 6) C (-5, -6) D (5, -6)

9

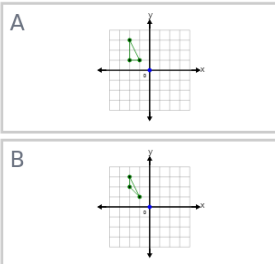
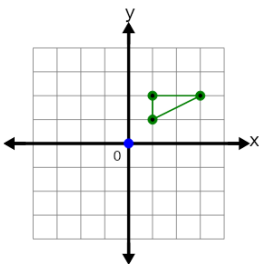
The triangle ABC is rotated 270° counter-clockwise about the origin to give triangle A'B'C'. What are the coordinates of B'?



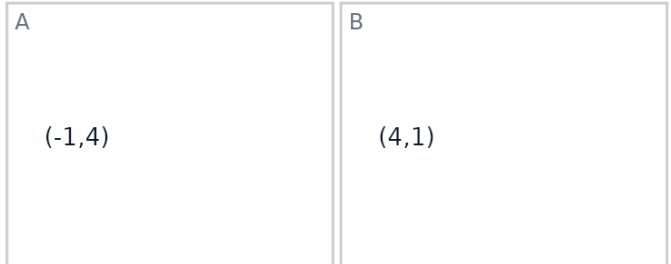
- A (-5, 5) B (5, -5) C (5, 5) D (-5, -5)

10

Rotate this shape by 90° counter-clockwise about the origin

**11**

(1, -4)

**12**

Rotate this shape by 90° clockwise about the origin

