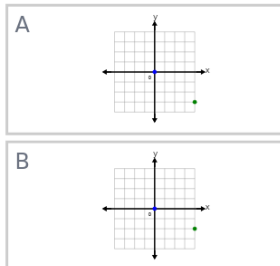
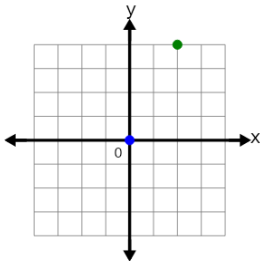


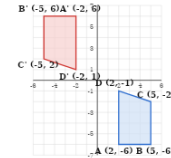


Apply coordinate rules for rotations

- 1** Rotate this point by 90° clockwise about the origin



- 2** The quadrilateral ABCD is rotated 180° 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** $(x, y) \rightarrow (-x, -y)$

- 3** A shape is rotated 90° counter-clockwise about the origin. Which coordinate rule describes this rotation?

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

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

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

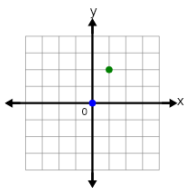
- 4** A rotation about the origin uses the coordinate rule $(x, y) \rightarrow (y, -x)$. Which rotation does this represent?

A 180°

B 270° clockwise

C 90° clockwise

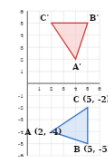
- 5** Rotate this point by 90° clockwise about the origin



A $(2, -1)$

B $(1, 2)$

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



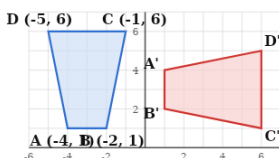
A $(-2, 5)$

B $(-2, -5)$

C $(2, 5)$

D $(2, -5)$

- 7** The quadrilateral ABCD is rotated 90° clockwise about the origin to give quadrilateral A'B'C'D'. What are the coordinates of C'?



A $(6, 1)$

B $(6, -1)$

C $(-6, -1)$

D $(-6, 1)$

- 8** $(-1, 1)$

A

$(-1, 1)$

B

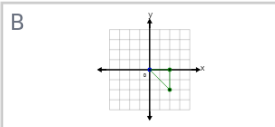
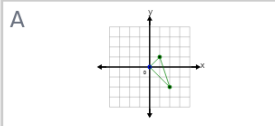
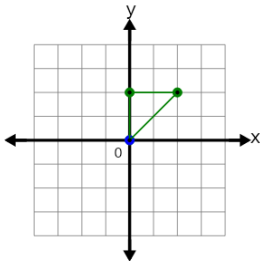
$(1, -1)$



Apply coordinate rules for rotations

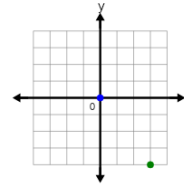
9

Rotate this shape by 90° clockwise about the origin



10

Rotate this point by 90° clockwise about the origin

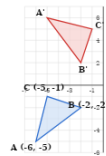


A (-4, -3)

B (-4, 3)

11

The triangle ABC is rotated 90° clockwise about the origin using the rule $(x, y) \rightarrow (y, -x)$ to give triangle A'B'C'. What are the coordinates of B'?



A (2, 2)

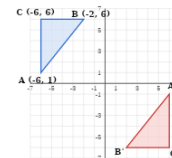
B (-2, 2)

C (2, -2)

D (-2, -2)

12

The triangle ABC is rotated 180° about the origin to give triangle A'B'C'. What are the coordinates of C'?



A (-6, -6)

B (6, -6)

C (6, 6)

D (-6, 6)