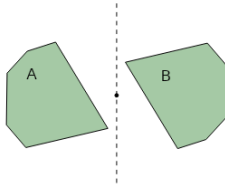




Rotate figures about a point

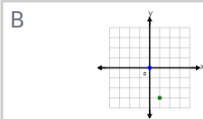
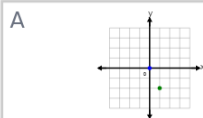
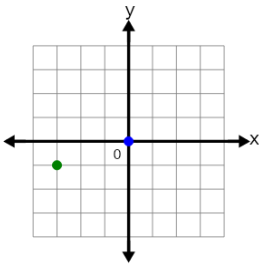
- 1** Is the transformation of shape A into shape B a Rotation?



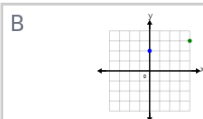
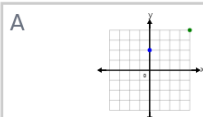
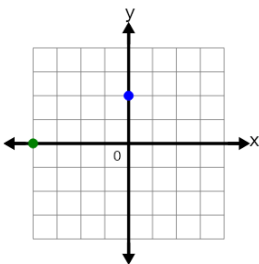
A Rotation

B Not a Rotation

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



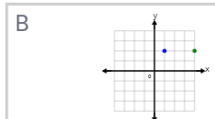
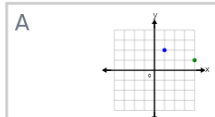
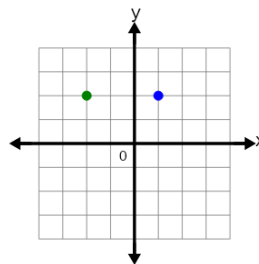
- 4** Rotate this point by 180° counter-clockwise about point (0,2)



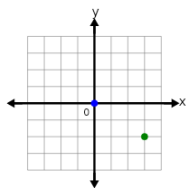
- 2** Which picture shows the object after a quarter turn counter-clockwise?



- 5** Rotate this point by 180° clockwise about point (1,2)



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



A (-2,-3)

B (-3,-2)

- 7**
(-1,-3)

A

(1,-3)

B

(-3,1)



Rotate figures about a point

8

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

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

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

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

9

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

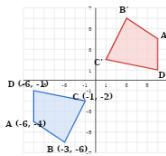
A 180°

B 270° counter-clockwise

C 270° clockwise

10

The quadrilateral ABCD is rotated 180° about the origin using the rule $(x, y) \rightarrow (-x, -y)$ to give quadrilateral A'B'C'D'. What are the coordinates of B'?



A $(3, -6)$

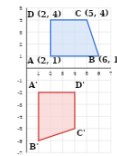
B $(-3, 6)$

C $(-3, -6)$

D $(3, 6)$

11

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



A $(-1, 2)$

B $(1, -2)$

C $(1, 2)$

D $(-1, -2)$

12

$(3, -1)$

A

$(1, -3)$

B

$(-1, -3)$

13

$(1, -1)$

A

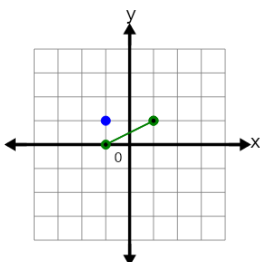
$(-2, 0)$

B

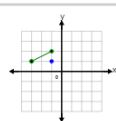
$(2, -0)$

14

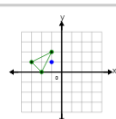
Rotate this shape by 180° counter-clockwise about point $(-1, 1)$



A

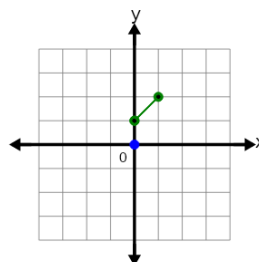


B

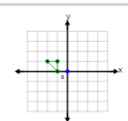


15

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



A



B

