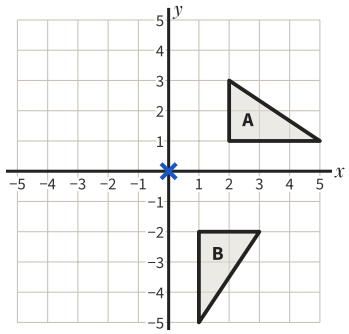
Describing rotations

ANSWERS

1

Describe fully the single transformation that maps A onto B.

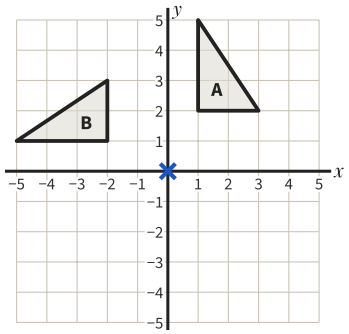


Rotation **90° clockwise**

about (0, 0)

2

Describe fully the single transformation that maps A onto B.

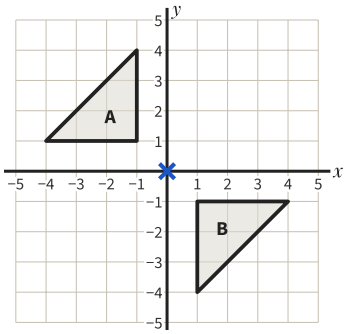


Rotation 90° anticlockwise

about (0, 0)

3

Describe fully the single transformation that maps A onto B.

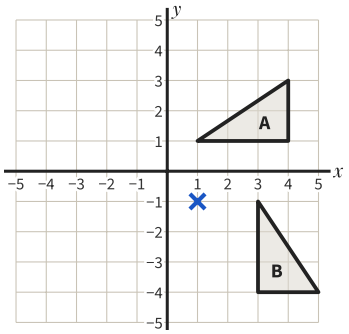


Rotation 180°

about (0, 0)

4

Describe fully the single transformation that maps A onto B.

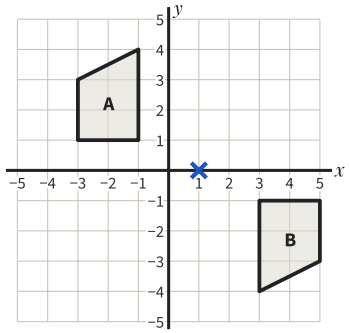


Rotation 90° clockwise

about (1, −1)

5

Describe fully the single transformation that maps A onto B.

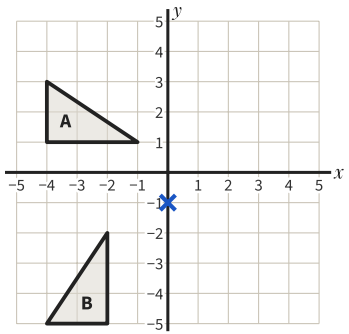


Rotation 180°

about (1, 0)

6

Describe fully the single transformation that maps A onto B.

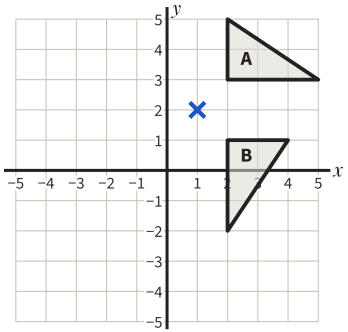


Rotation 90° anticlockwise

about (0, −1)

7

Zara writes "Rotation, 90° clockwise". What is missing? Write it in full.



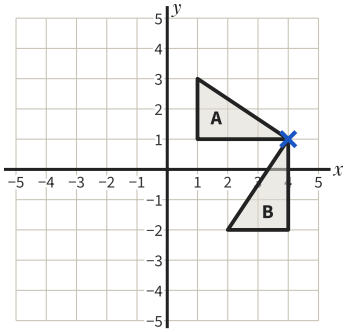
left out: the centre

Rotation 90° clockwise

about (1, 2)

8 Notice the change!

Describe fully the single transformation that maps A onto B. The centre is on a corner.



Rotation 90° anticlockwise

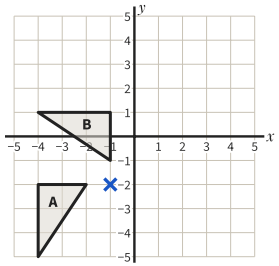
about (4, 1)

Describing rotations *further practice*

ANSWERS

9

Describe fully the single transformation that maps A onto B.



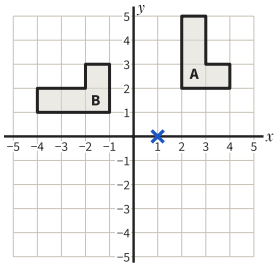
side to the right, then down

tracing pinned at (−1, −2) lands on B

Answer *Rotation 90° clockwise about (−1, −2)*

10

Describe fully the single transformation that maps A onto B.



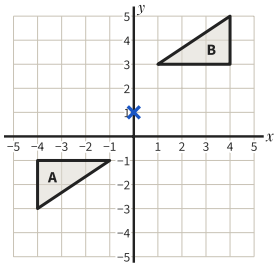
the long side up, then left

tracing pinned at (1, 0) lands on B

Answer *Rotation 90° anticlockwise about (1, 0)*

11

An app's logo turns from position A to position B. Describe fully the single transformation.



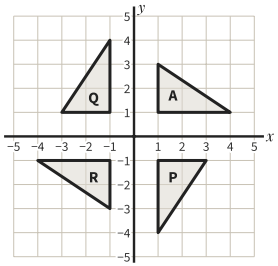
the side right, then left: a half turn

no direction for 180°

Answer *Rotation 180° about (0, 1)*

12

Which shape is the image of A after a rotation 90° anticlockwise about (0, 0)?



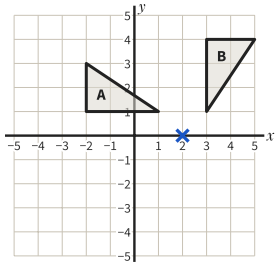
the side right, then up: anticlockwise

P is clockwise, R is 180°

Answer *Q*

13

Ravi describes this as "Rotation 90° anticlockwise about (2, 0)".
Explain his mistake.



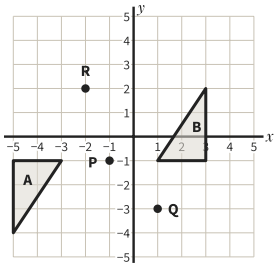
the side points right, then down

right to down is clockwise

Answer *it turns clockwise*

14

A half turn maps A onto B.
Which point, P, Q or R, is the centre?



tracing pinned at P lands on B

at Q or R it misses

Answer *P*

15

Shape A is rotated 90° clockwise about (0, 0), then the image is rotated 90° clockwise about (0, 0) again.
Describe fully the single transformation that does the same.

two quarter turns make a half turn

the centre stays at (0, 0)

Answer *Rotation 180° about (0, 0)*

16

A rotation 90° clockwise about (3, 1) maps shape P onto shape Q.
Describe fully the single transformation that maps Q onto P.

turn back the other way

about the same centre

Answer *Rotation 90° anticlockwise about (3, 1)*