Rotations

93a

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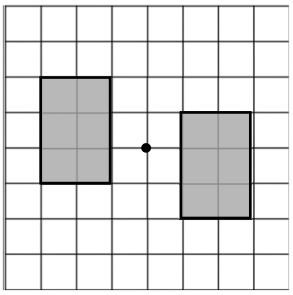
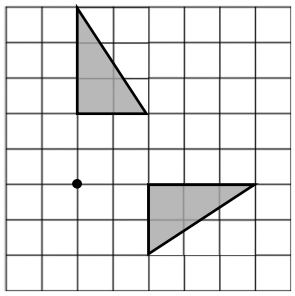
Name:

Rotate the following shapes by the given angle and direction about the marked centre of rotation:

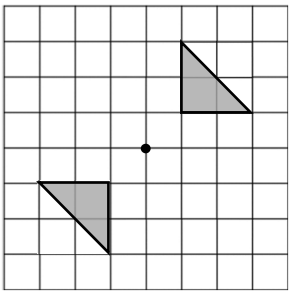
a) 180°



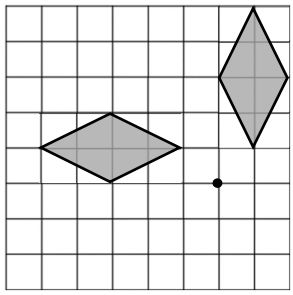
b) 90° clockwise



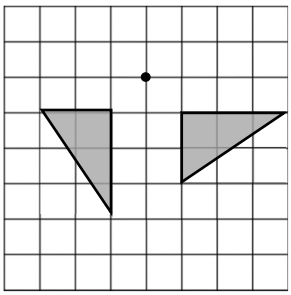
c) 180°



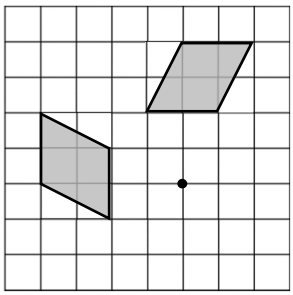
d) 90° anticlockwise



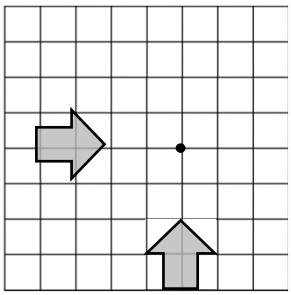
e) 90° clockwise



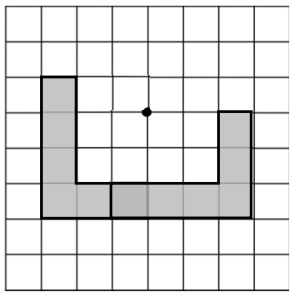
f) 90° anticlockwise



g) 270° anticlockwise

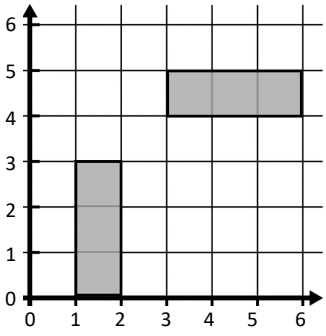


h) 90° anticlockwise

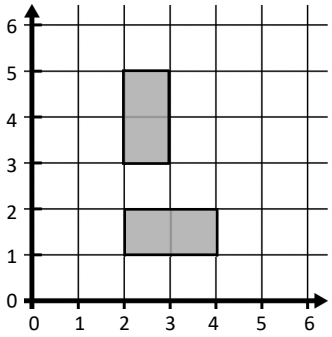


Rotate the following shapes by the given angle and direction about the co-ordinate of the centre of rotation:

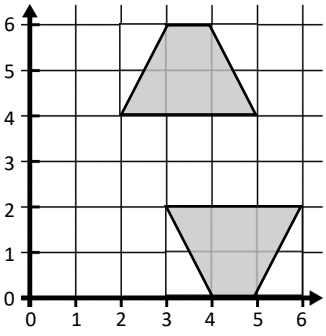
i) 90° clockwise about (2,4)



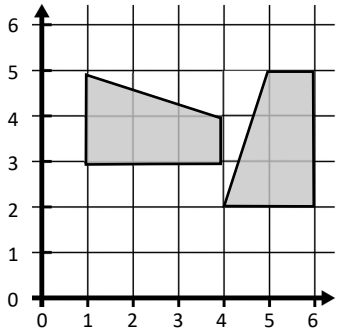
j) 90° clockwise about (4,3)



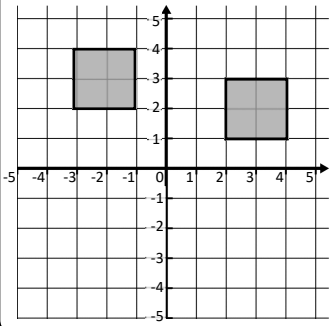
k) 180° about (4,3)



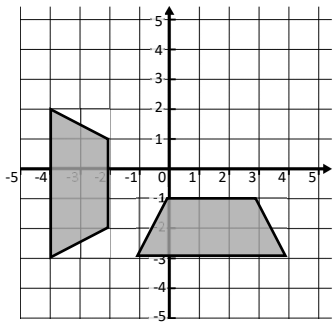
l) 90° clockwise about (4,5)



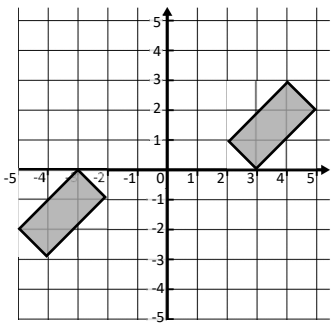
m) 90° anticlockwise about (0,0)



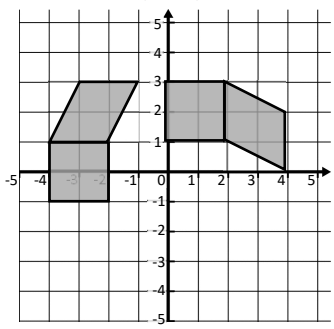
n) 90° anticlockwise about (0,1)



o) 180° about (0,0)

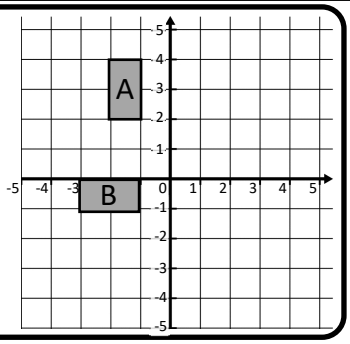


p) 90° clockwise about (0,-1)



Exam question:

Rotate shape A 90° anti-clockwise around the point (1,1).
Label this shape B.



Describing rotations

93b

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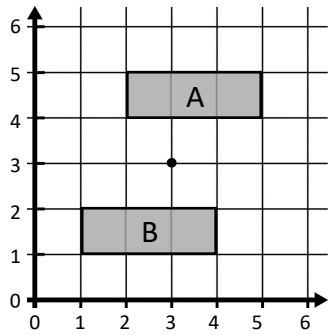
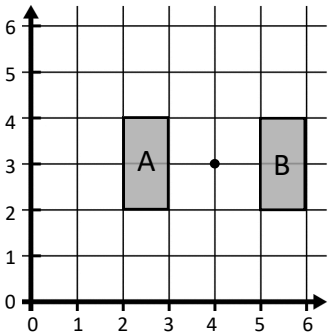
Describe the rotation (transformation) of the shapes from **A to B**:

a)



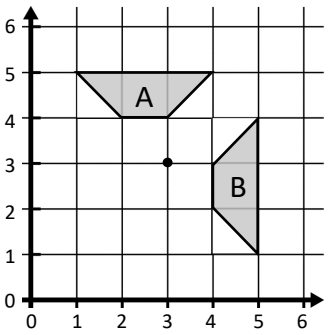
Rotation
180°
Centre (3, 3)

b)



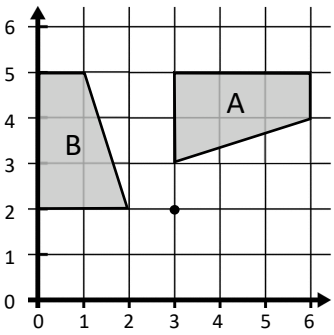
Rotation
180°
Centre (4, 3)

c)



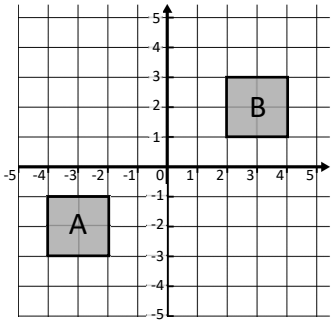
Rotation
90° Clockwise
Centre (3, 3)

d)



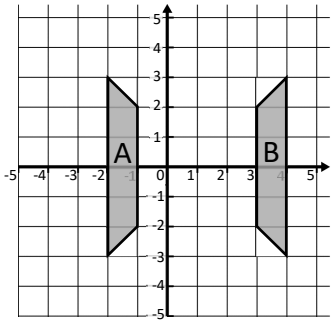
Rotation
90° Anti-Clockwise
Centre (3, 2)

e)



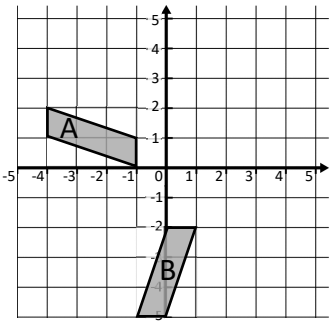
Rotation
180°
Centre (0, 0)

f)



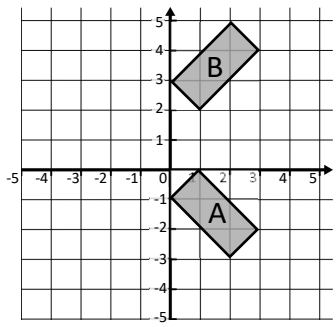
Rotation
180°
Centre (1, 0)

g)



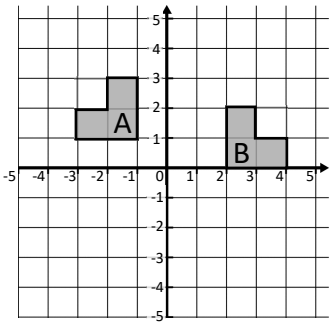
Rotation
90° Anti-Clockwise
Centre (0, 1)

h)



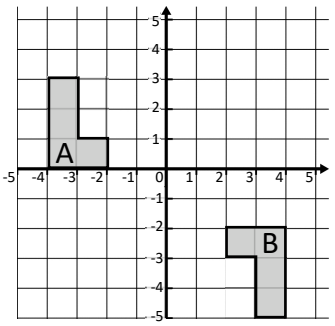
Rotation
90° Anti-Clockwise
Centre (-1, 1)

i)



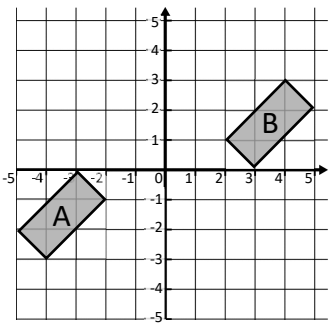
Rotation
90° Clockwise
Centre (0, -1)

j)



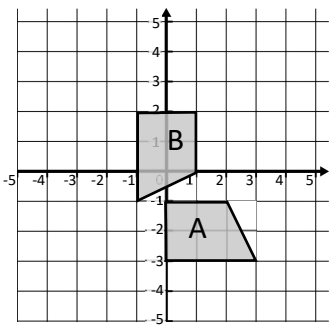
Rotation
180°
Centre (0, -1)

k)



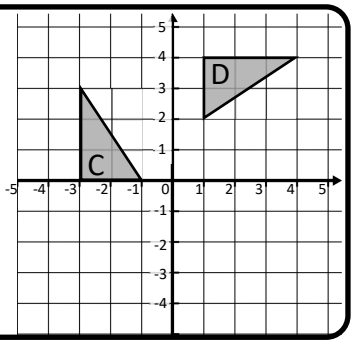
Rotation
180°
Centre (0, 0)

l)



Rotation
90° Clockwise
Centre (0, 2)

Exam question:
Fully describe the single transformation that maps shape **C** onto shape **D**.



Rotation
90° Clockwise
Centre (0, 1)