

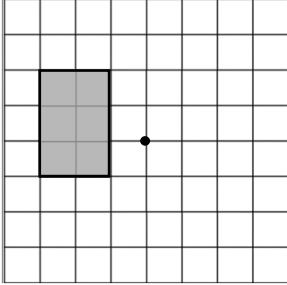


Name: _____

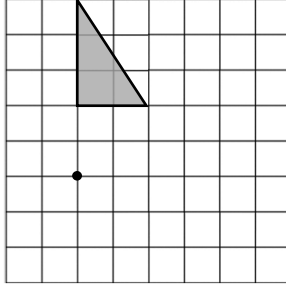


Rotate the following shapes by the given angle and direction about the marked centre of rotation:

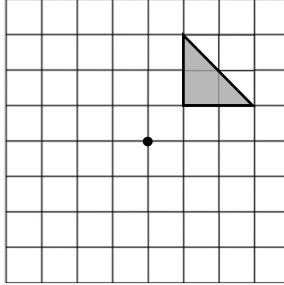
a) 180°



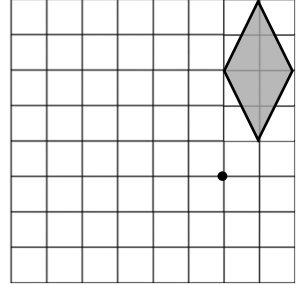
b) 90° clockwise



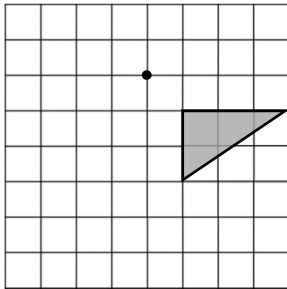
c) 180°



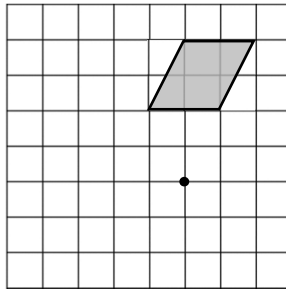
d) 90° anticlockwise



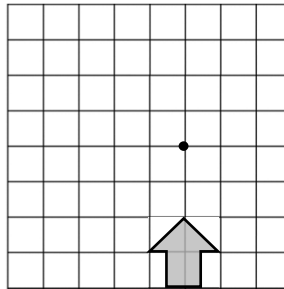
e) 90° clockwise



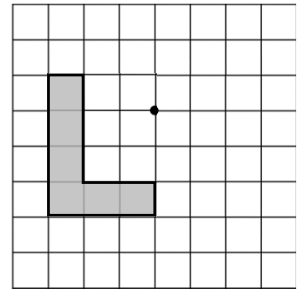
f) 90° anticlockwise



g) 270° anticlockwise

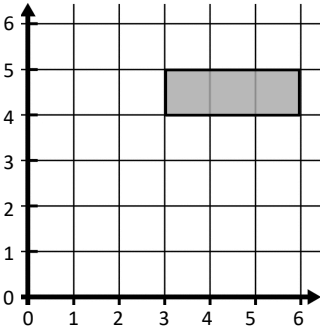


h) 90° anticlockwise

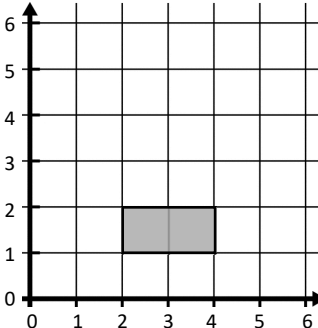


Rotate the following shapes by the given angle and direction about the co-ordinate of the centre of rotation:

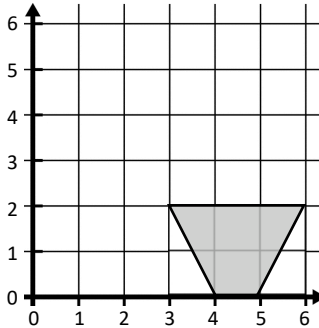
i) 90° clockwise about (2,4)



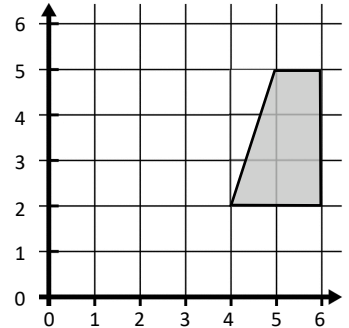
j) 90° clockwise about (4,3)



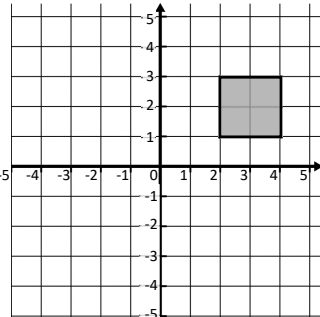
k) 180° about (4,3)



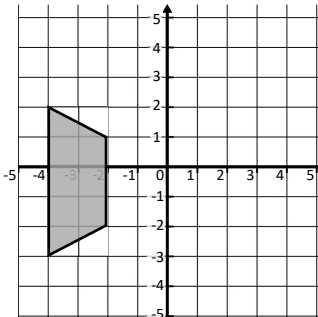
l) 90° clockwise about (4,5)



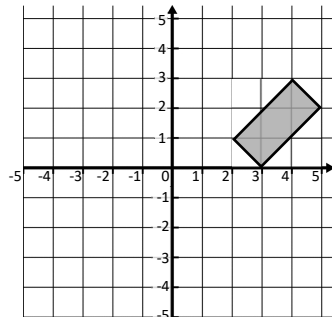
m) 90° anticlockwise about (0,0)



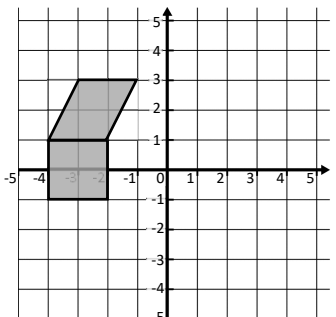
n) 90° anticlockwise about (0,1)



o) 180° about (0,0)

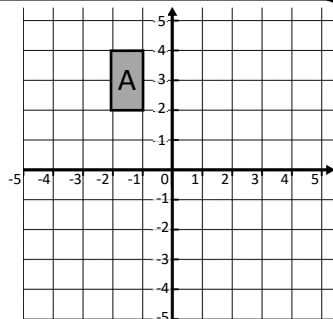


p) 90° clockwise about (0,-1)



Exam question:

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

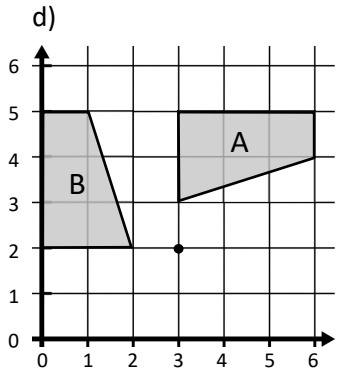
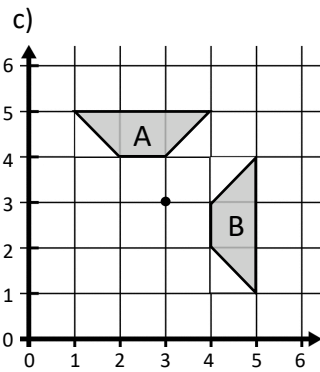
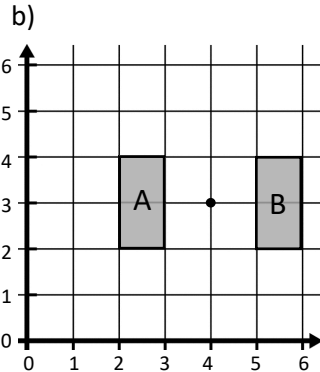
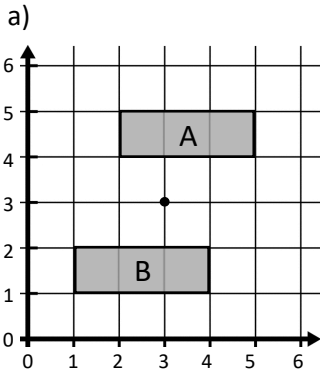


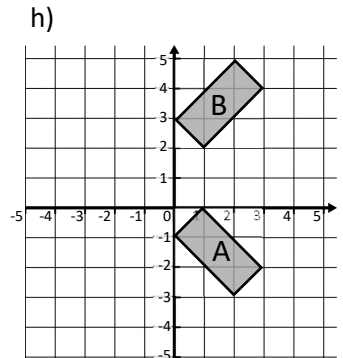
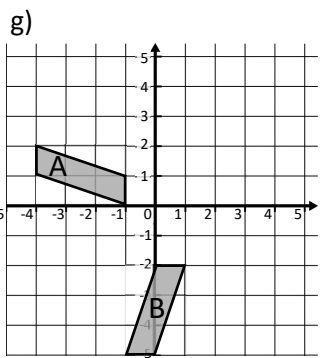
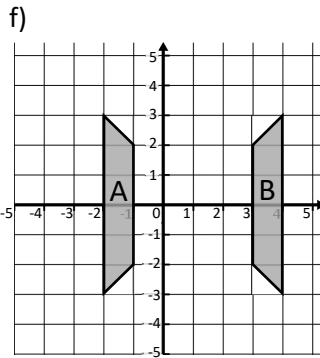
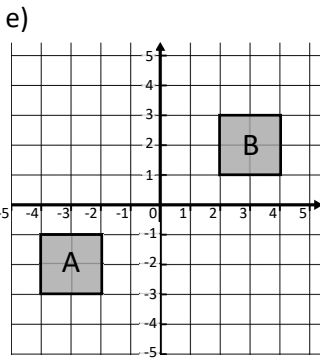


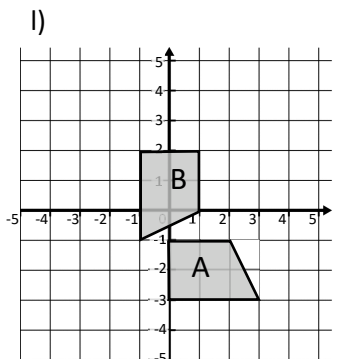
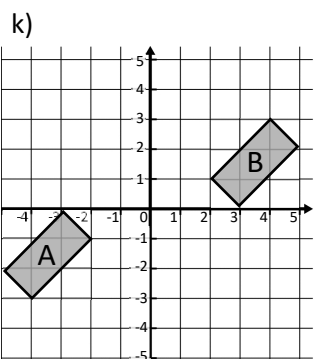
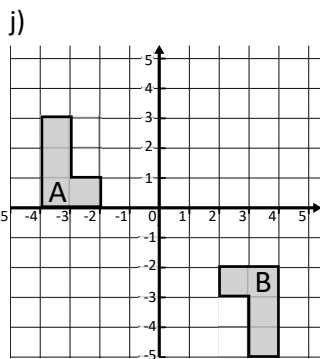
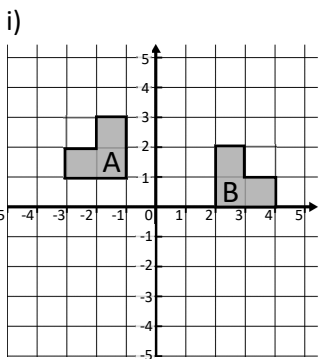
Name: _____



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









Exam question:

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

