

Transformations (F)

Intervention Booklet

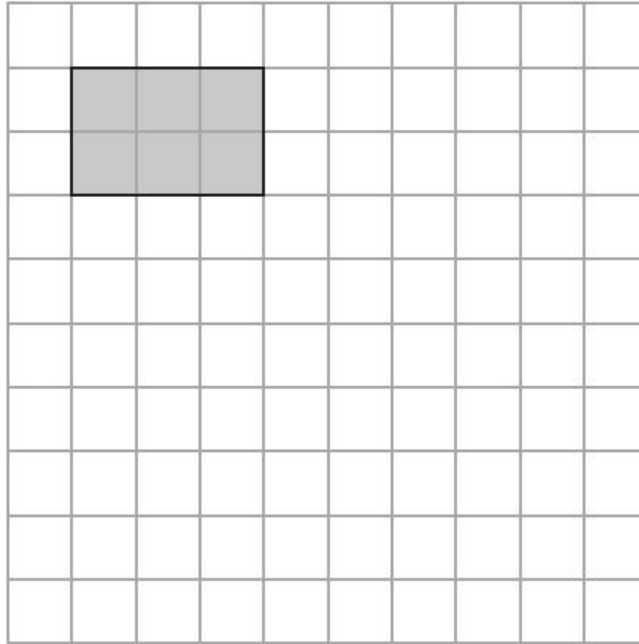
Transformations

Things to remember:

- Reflection – the shape is flipped in a mirror line
- Rotation – the shape is turned a number of degrees, around a centre, clockwise or anti-clockwise
- Translation – the shape is moved by a vector $\begin{pmatrix} x \\ y \end{pmatrix}$
- Enlargement – the shape is made bigger or smaller by a scale factor from a centre.

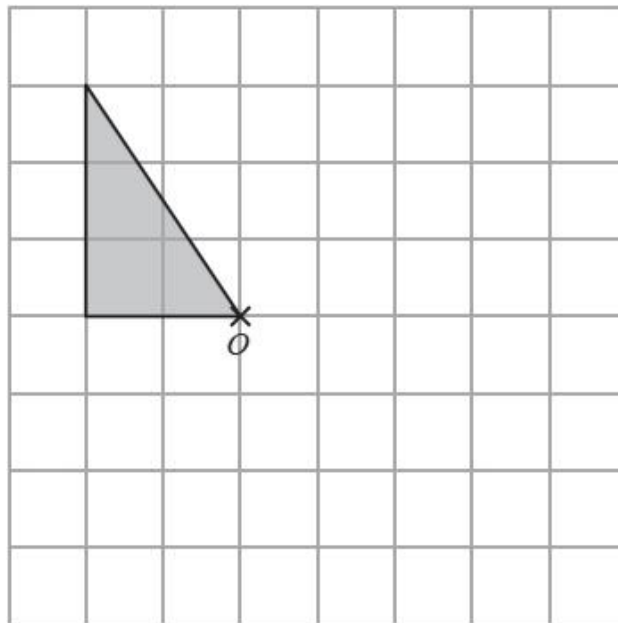
Questions:

1. (a) On the grid, draw an enlargement of the rectangle with scale factor 2



(1)

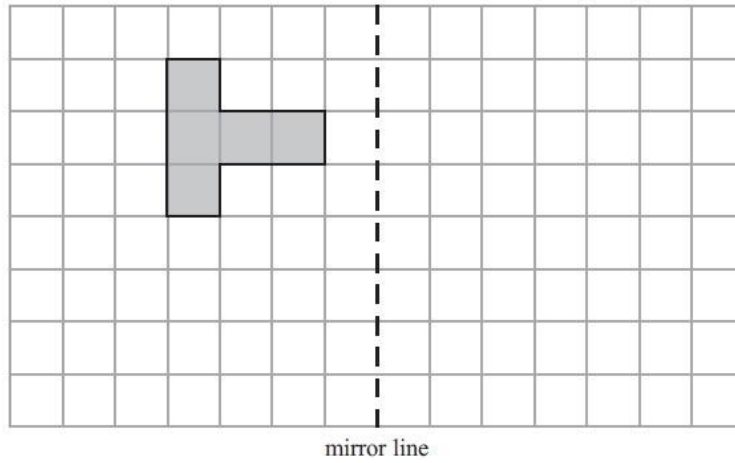
- (b) On the grid, rotate the triangle 90° clockwise about the point O .



(2)

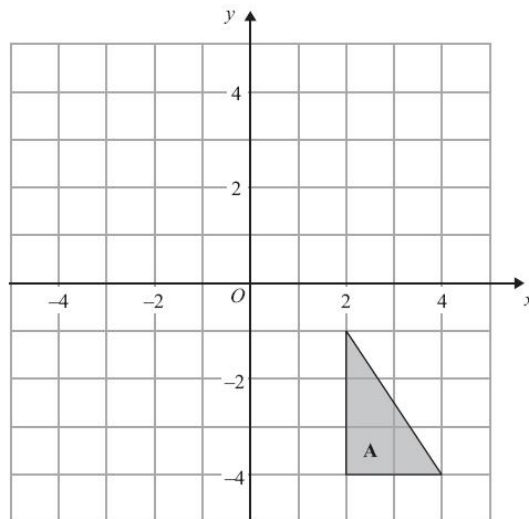
(Total for question = 3 marks)

2. Reflect the shaded shape in the mirror line.



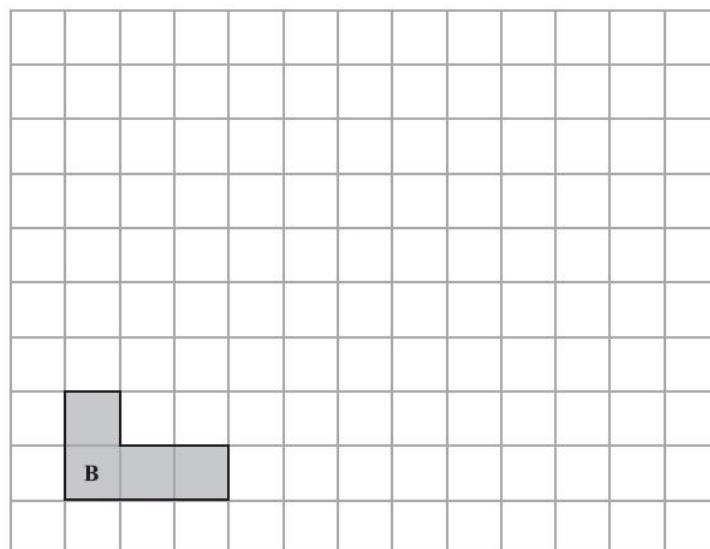
(Total for Question is 2 marks)

3. (a) Reflect triangle A in the x-axis.



(2)

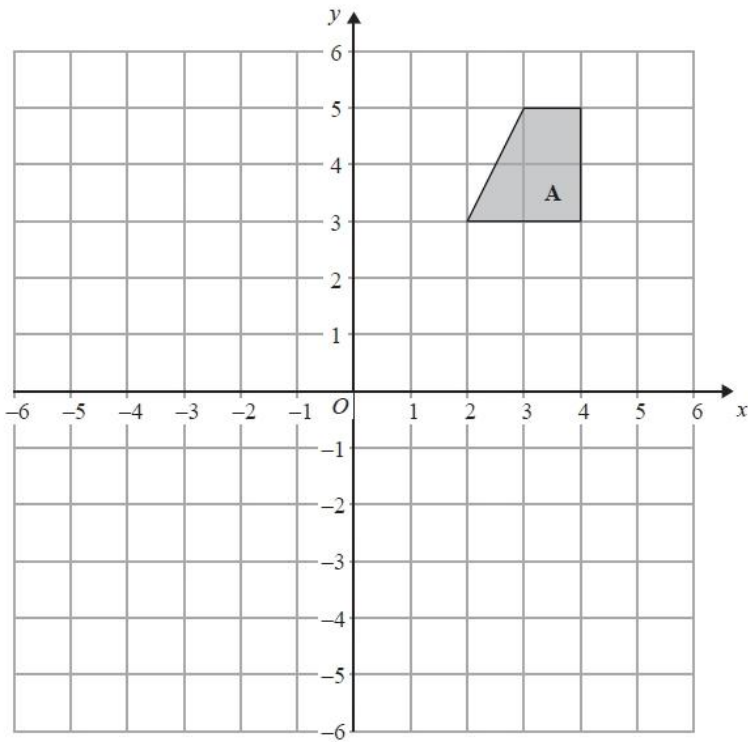
- (b) Draw an enlargement, scale factor 3, of shape B.



(2)

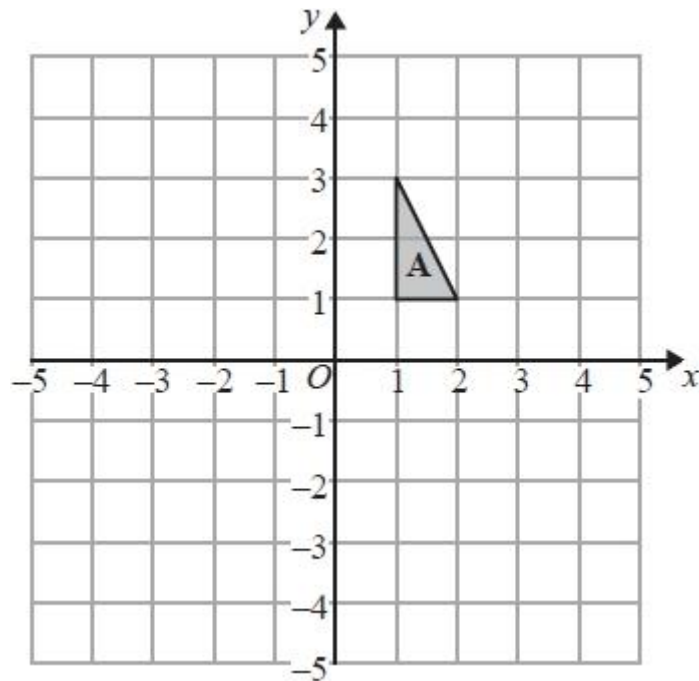
(Total for Question is 4 marks)

4. On the grid, rotate shape **A** 180° about the point $(1, 1)$.



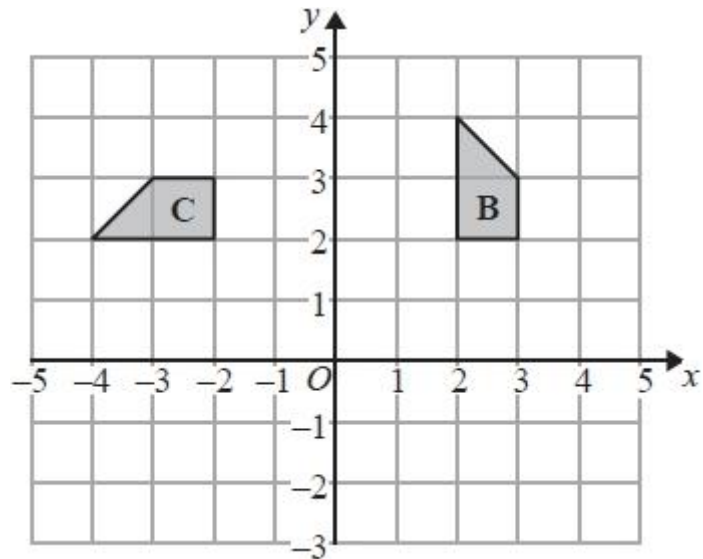
Total for Question is 2 marks)

5. (a) On the grid above, translate shape **A** by the vector $\begin{pmatrix} -3 \\ -1 \end{pmatrix}$



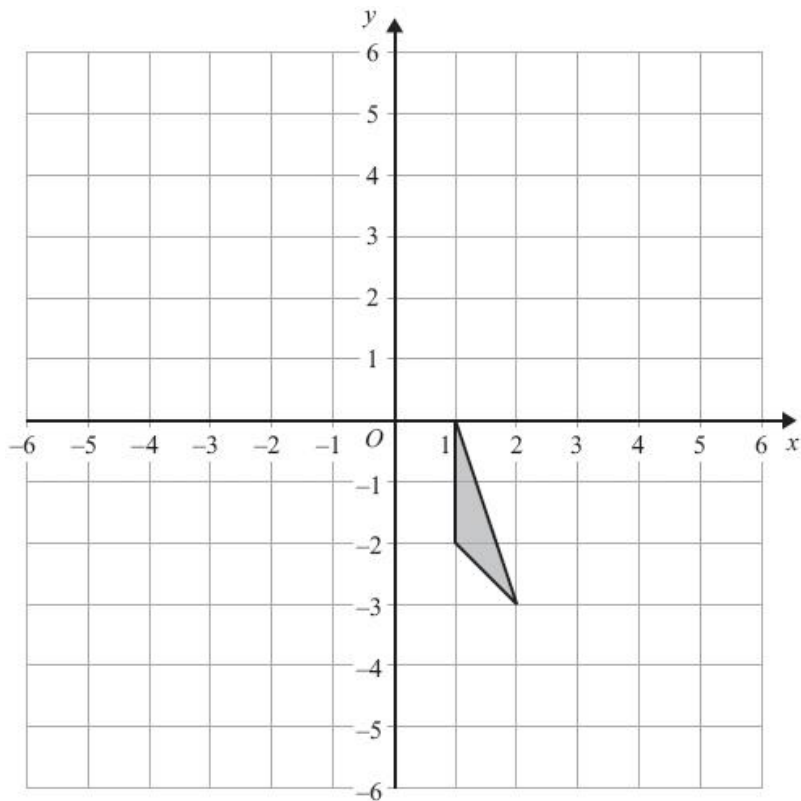
(2)

(b) Describe fully the single transformation that maps shape **B** onto shape **C**.



(3)
(Total for question = 5 marks)

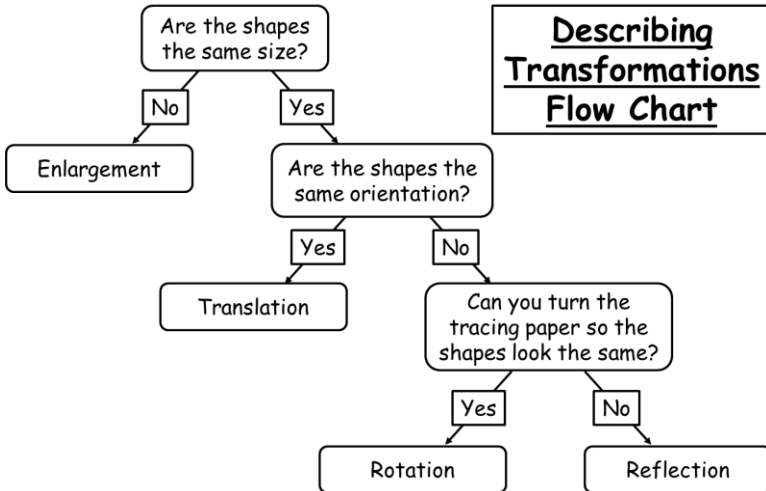
6. Translate the triangle by $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$.



(Total for Question is 2 marks)

Describing Transformations

Things to remember:

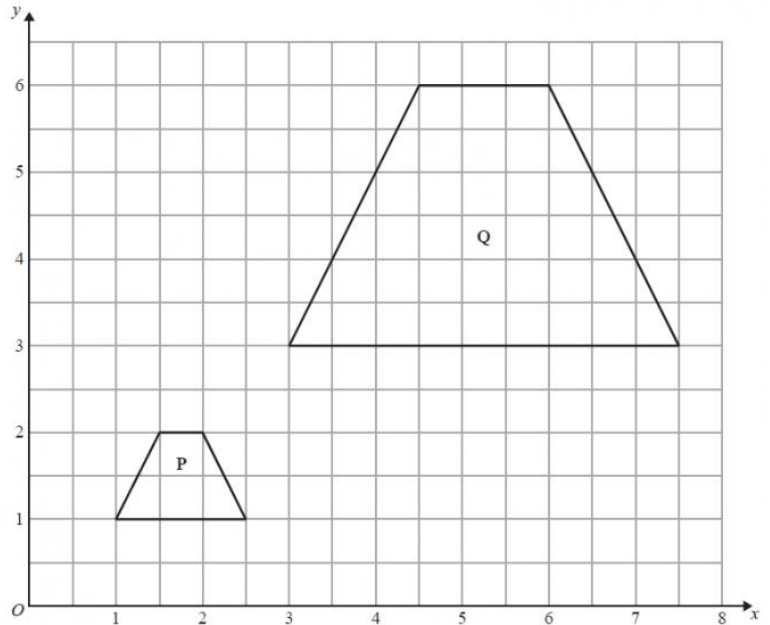


Questions:

1. Describe fully the single transformation that maps shape P onto shape Q.

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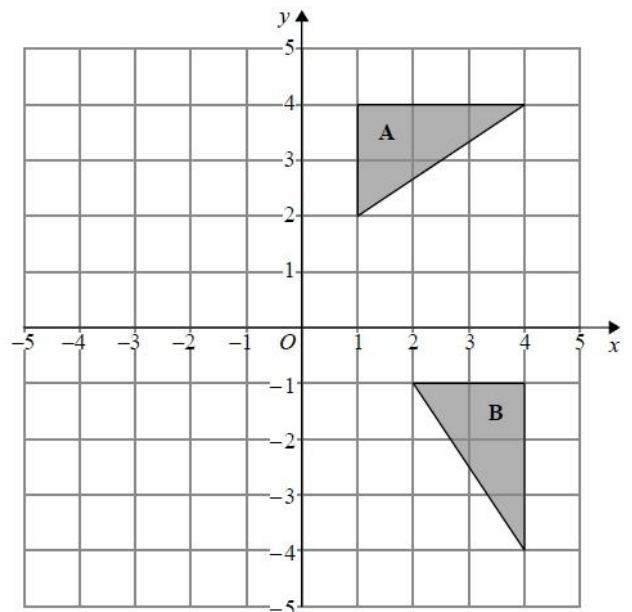
(Total for Question is 3 marks)



2. Describe fully the single transformation that maps triangle A onto triangle B.

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(Total for question = 2 marks)

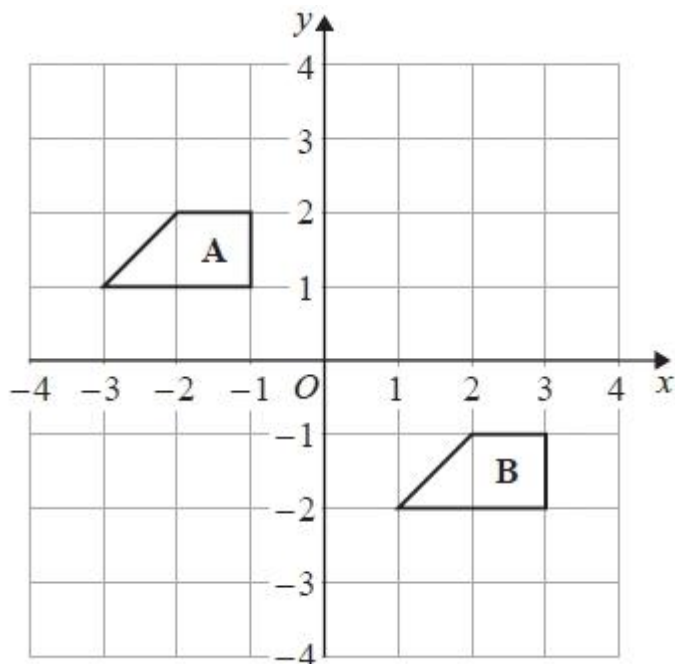


3. Describe the single transformation that maps shape A onto shape B.

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(Total for question = 2 marks)

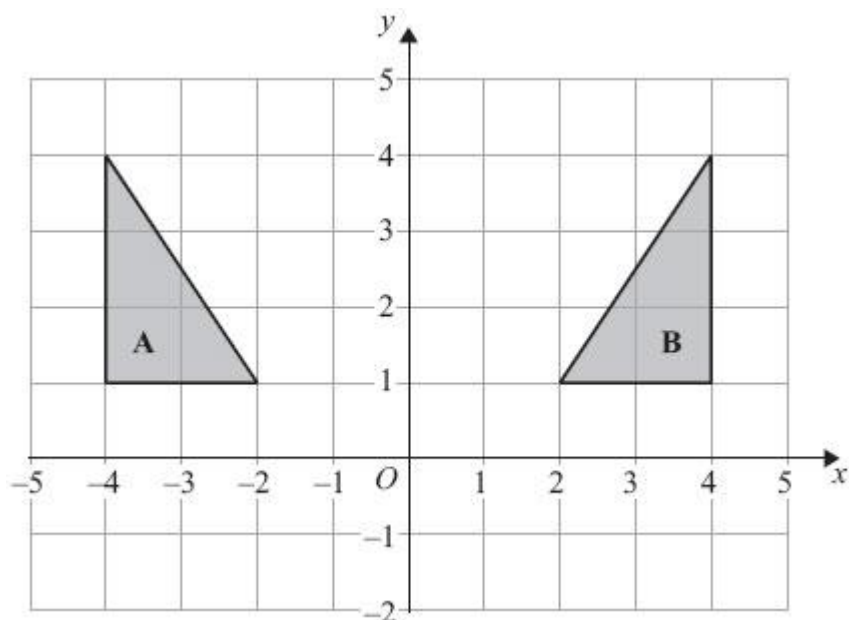


4. Describe fully the single transformation that maps shape A onto shape B.

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(Total for Question is 2 marks)



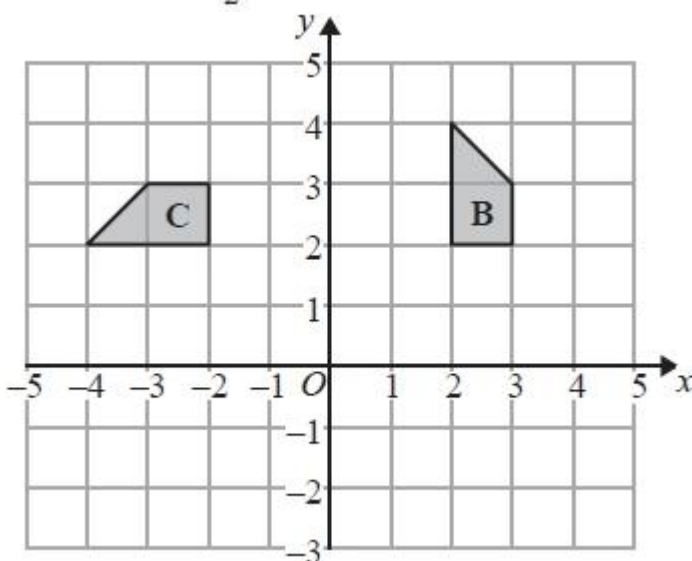
5. Describe fully the single transformation that maps shape B onto shape C.

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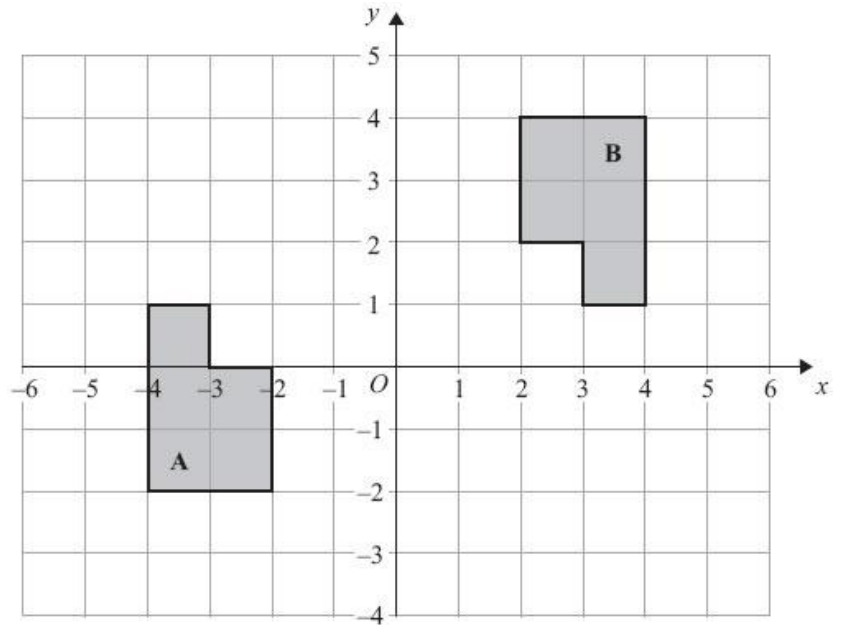
(Total for question = 3 marks)



6. Describe fully the single transformation that maps shape A onto shape B.

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(Total for Question is 3 marks)



7. Describe fully the single transformation that maps shape Q onto shape R.

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(Total for Question is 3 marks)

