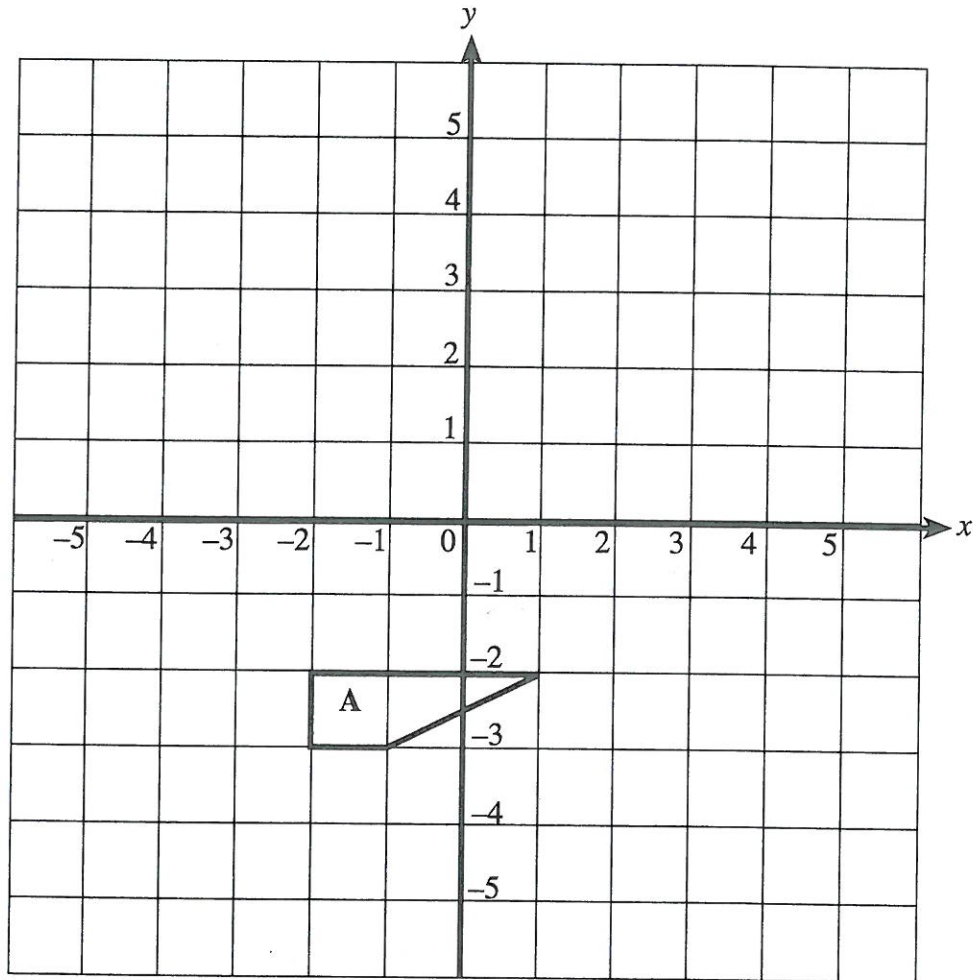


TRANSFORMATIONS: (TRANSLATION, ROTATION & REFLECTION)

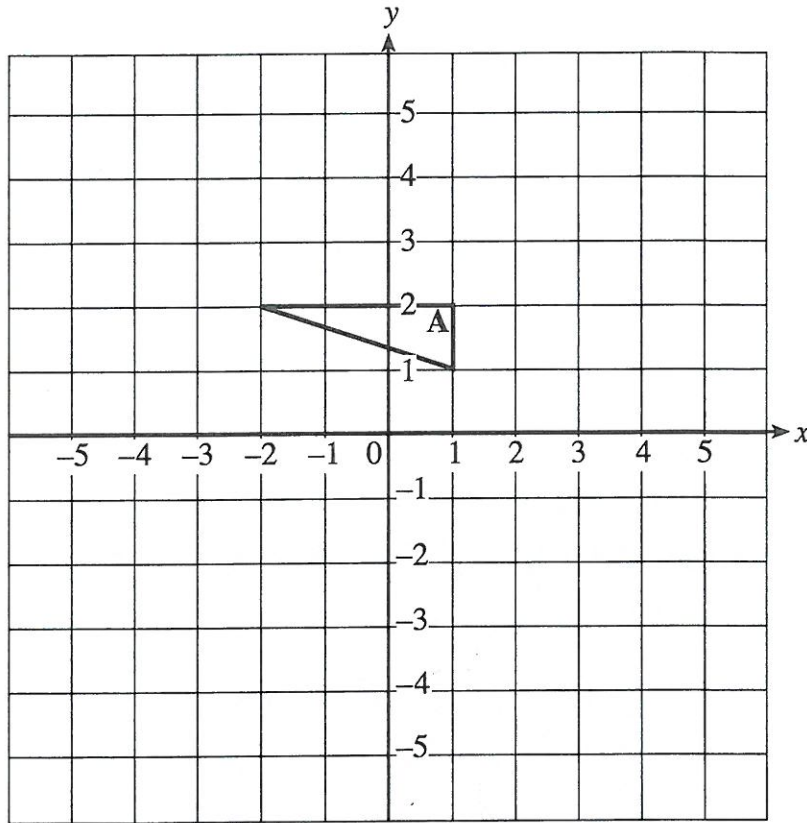
①

Draw the image of the shape A after a translation of -3 units in the x -direction and 5 in the y -direction. Label the image B. [2]

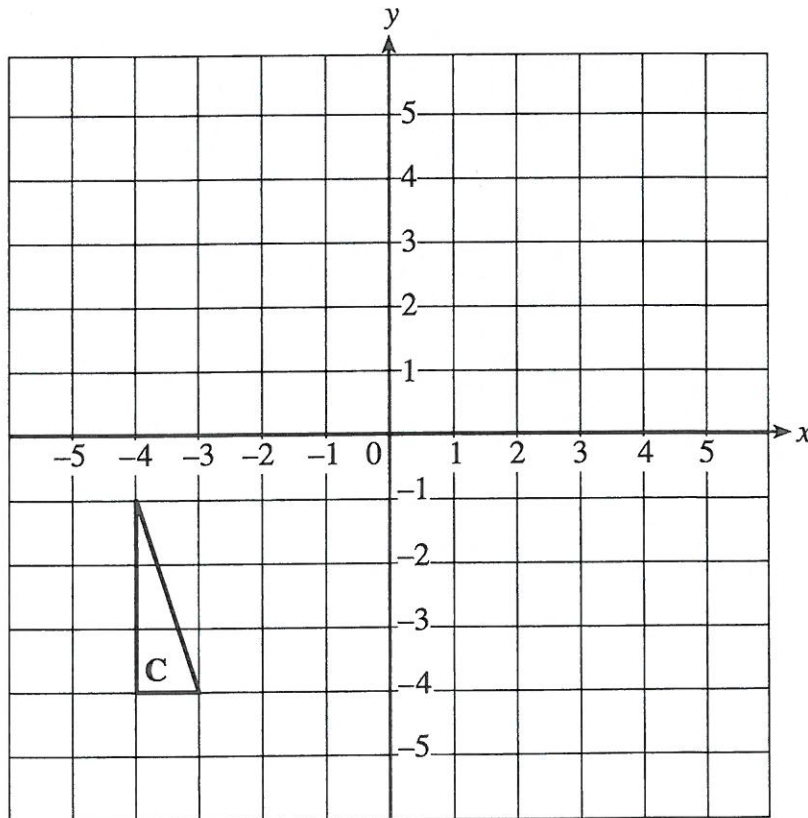


2

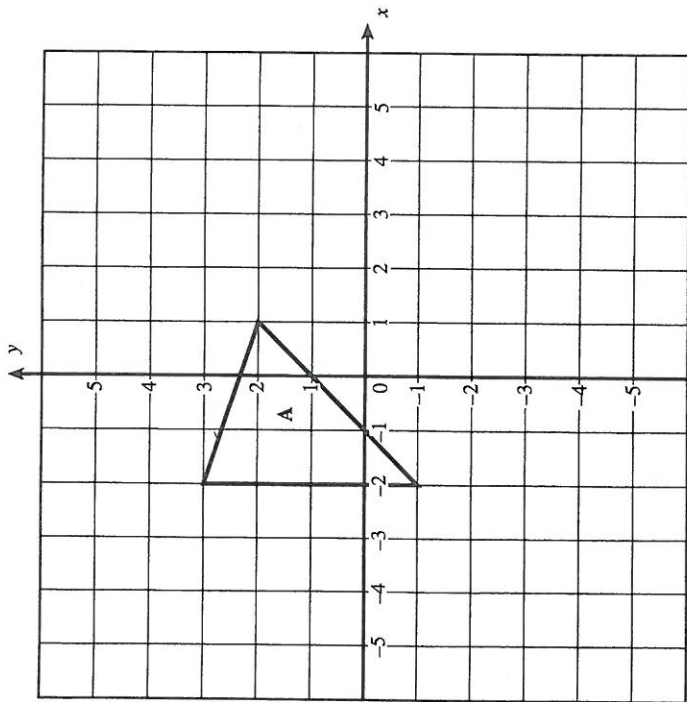
- (a) Draw the image of the shape A after a translation of 3 units in the x direction and -5 in the y direction. Label the image B. [2]



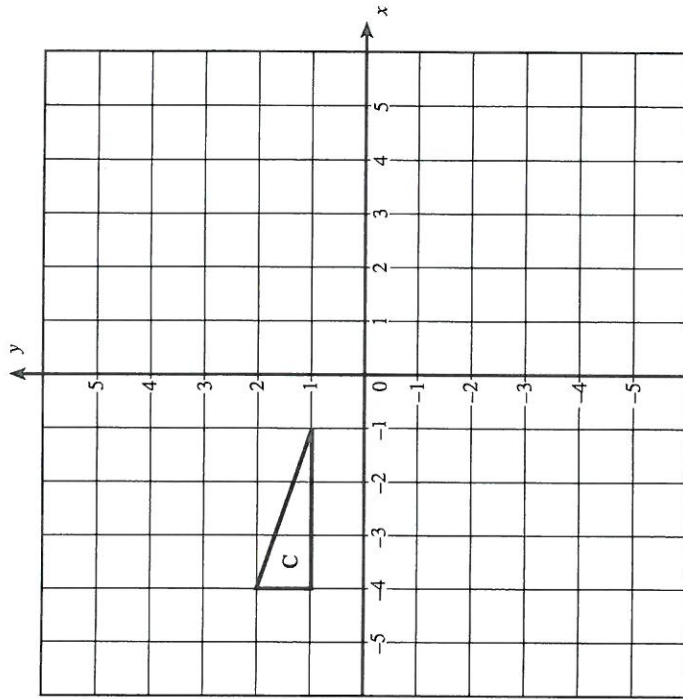
- (b) Rotate the shape C through 90° clockwise about the point $(1, -2)$. Label the image D. [2]



- (a) Draw the image of the triangle A after a translation of 4 units in the x direction and -2 units in the y direction. Label the image B. [2]

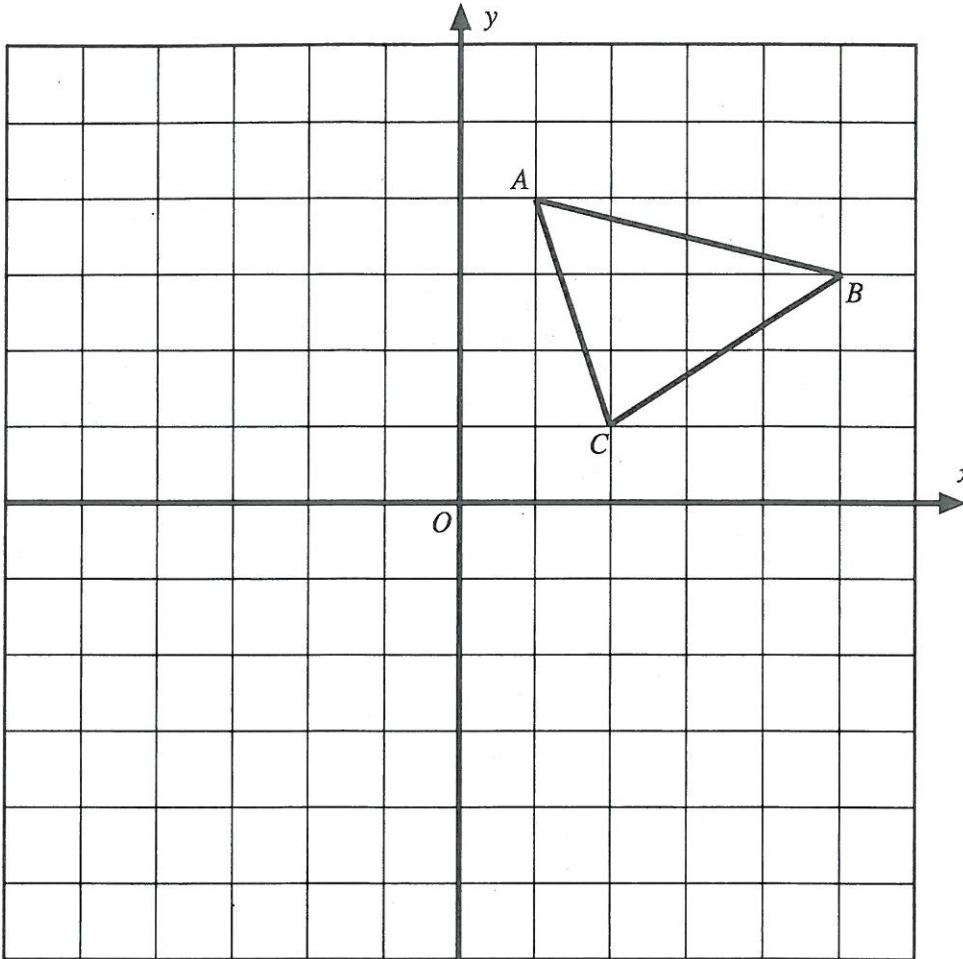


- (b) Rotate the triangle C through 90° clockwise about the point $(-1, -1)$. Label the image D. [2]



4

(a) Reflect the triangle ABC in the x -axis.

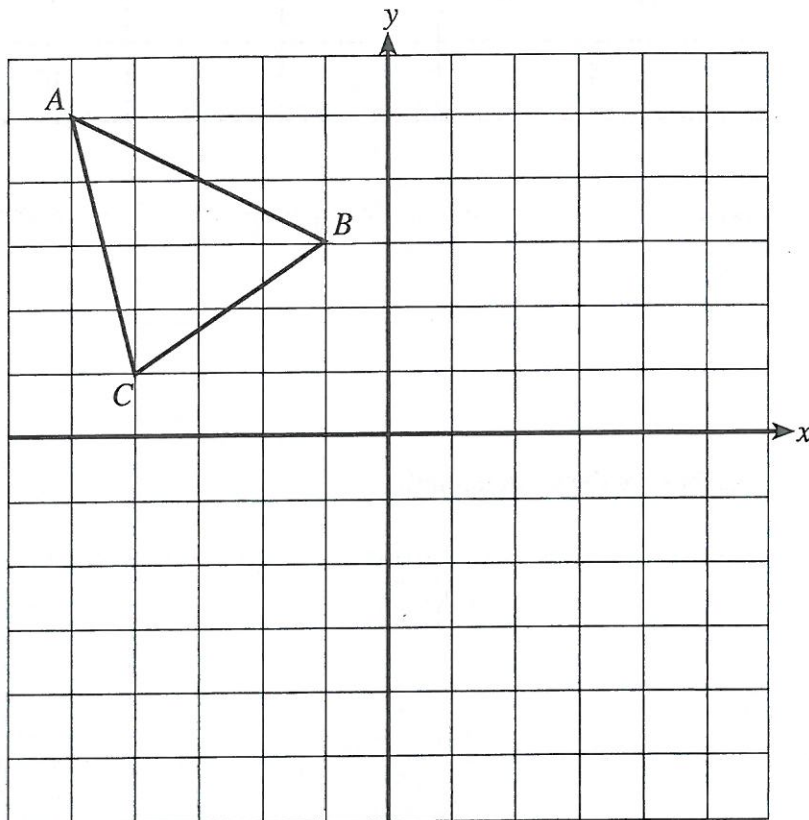


[1]

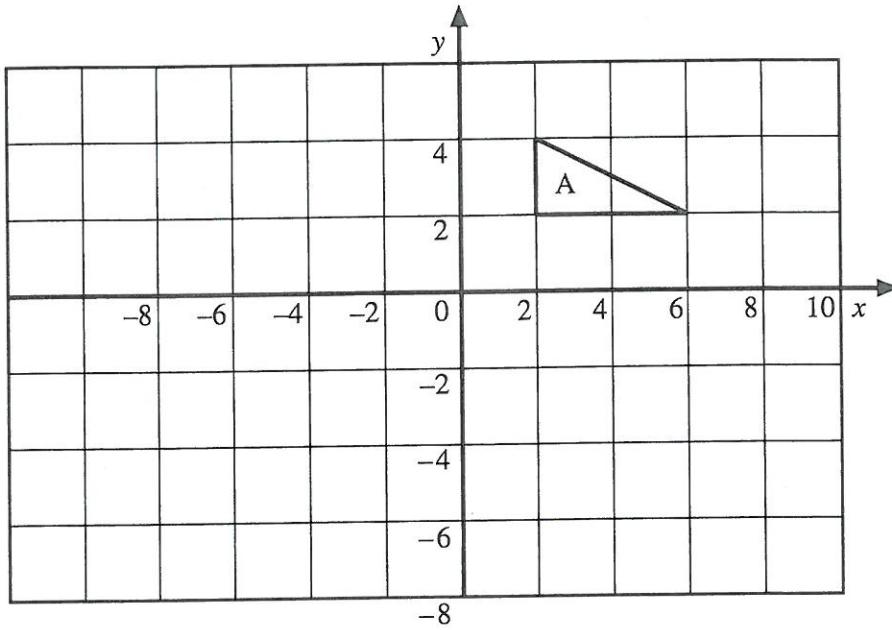
5

Reflect the triangle ABC in the y -axis.

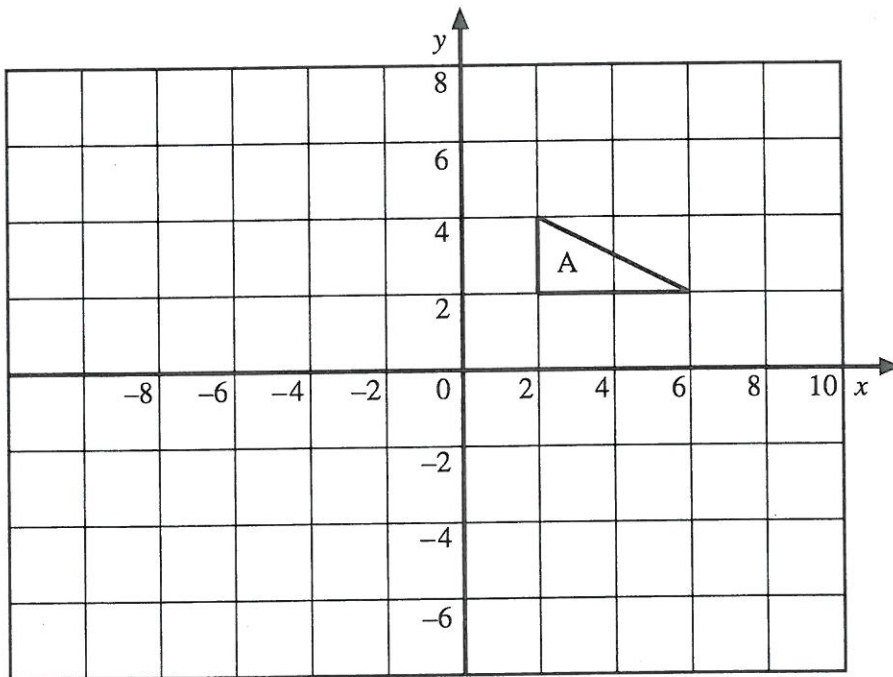
[1]



6



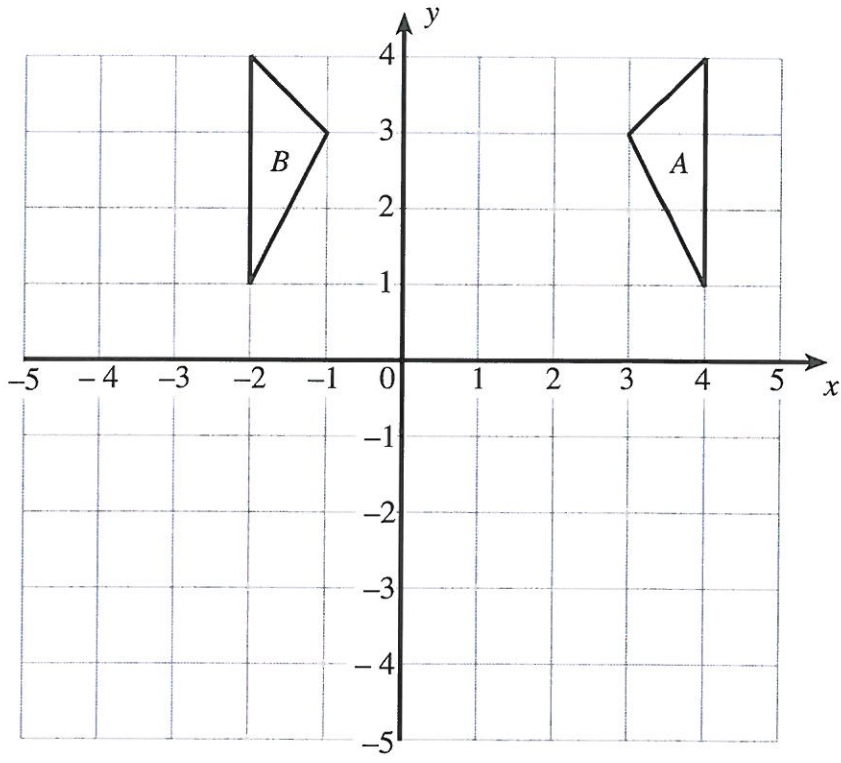
- (a) Rotate the shape A through 90° clockwise with centre $(-2, 0)$. Label the image B. [2]



- (b) Reflect the shape A in the line $y = x$. Label the image C. [1]

7 (a)

Describe fully the transformation that transforms triangle A into triangle B.



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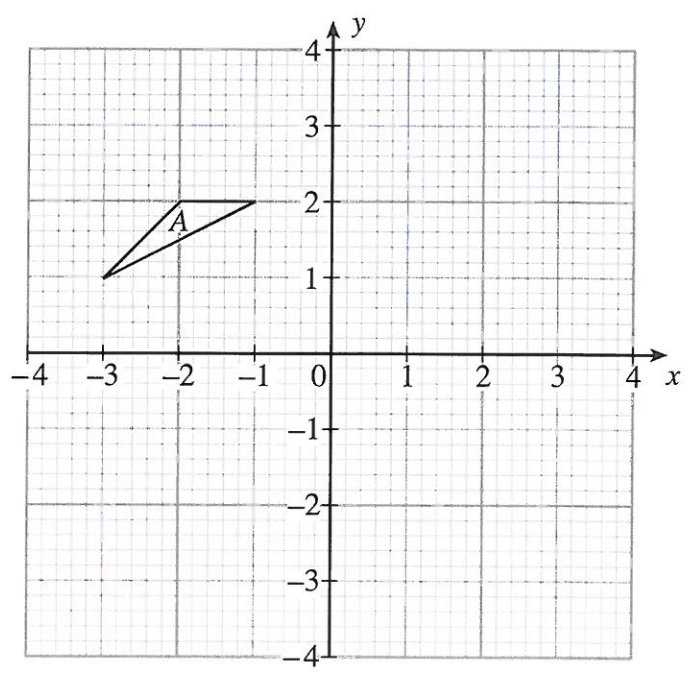
.....

[2]

(b)

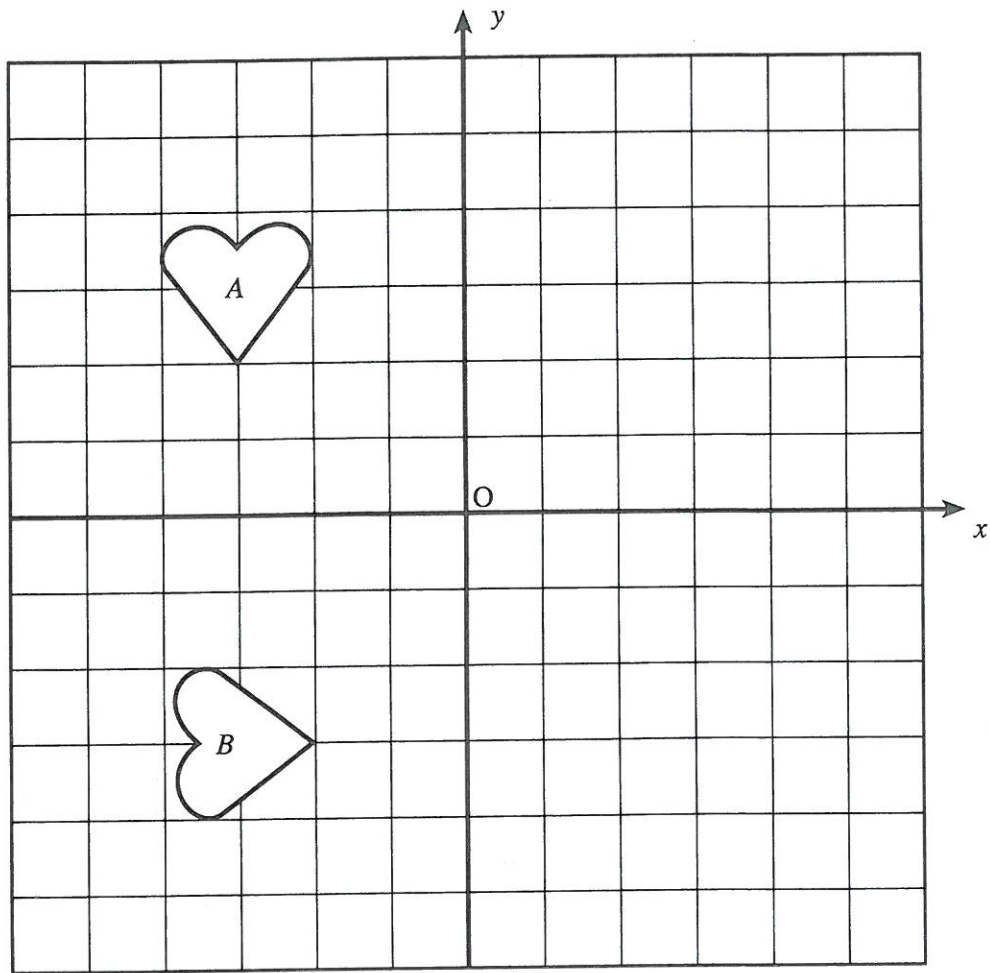
Rotate the triangle A through 90° anticlockwise about the origin.

[2]



8

Describe the single transformation that takes the shape marked *A* onto the shape marked *B*.



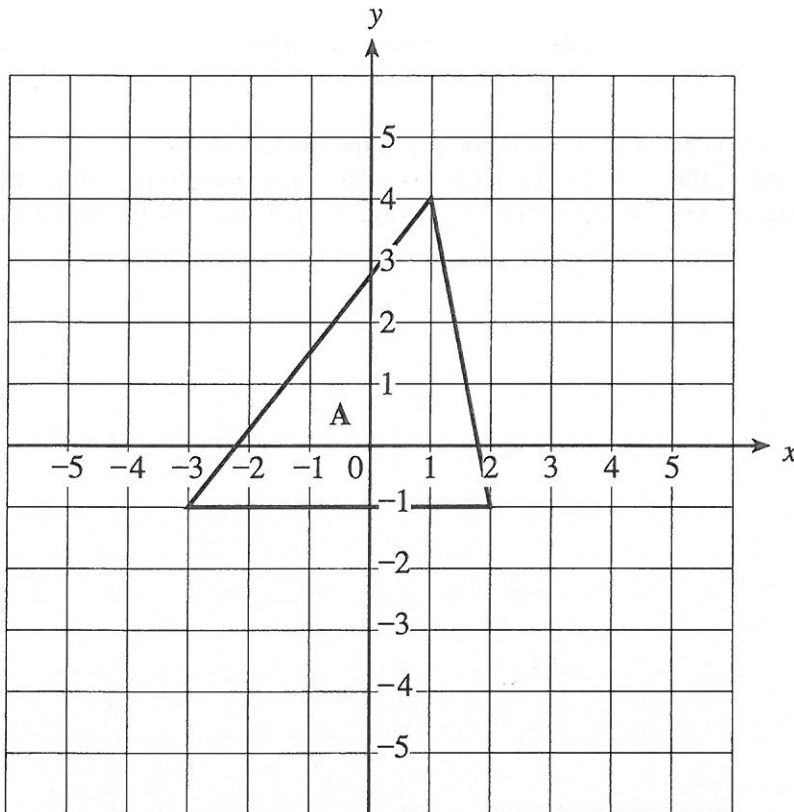
.....
.....

[3]

9

- (a) Draw the image of the triangle A after a reflection in the line $y = x$.
Label the image B.

[2]



- (b) Rotate the triangle C through 90° anticlockwise about the point (2,1).
Label the image D.

[2]

