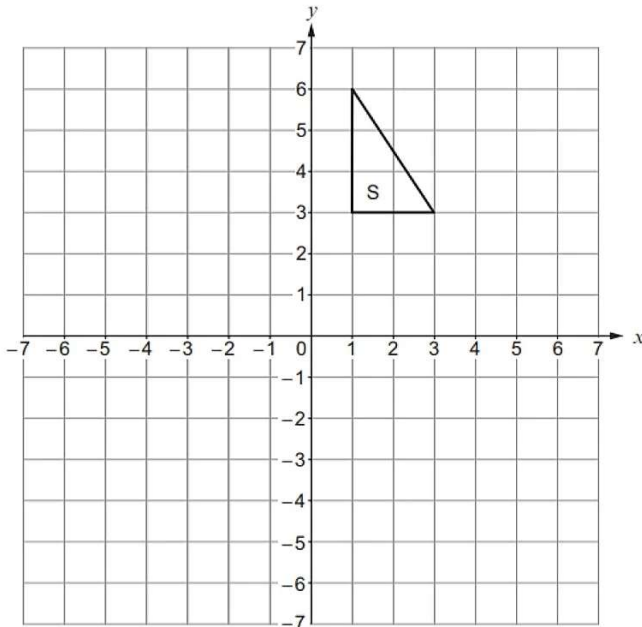


(b) (i) Translate the triangle S using the column vector  $\begin{pmatrix} -5 \\ -4 \end{pmatrix}$ .

[1]

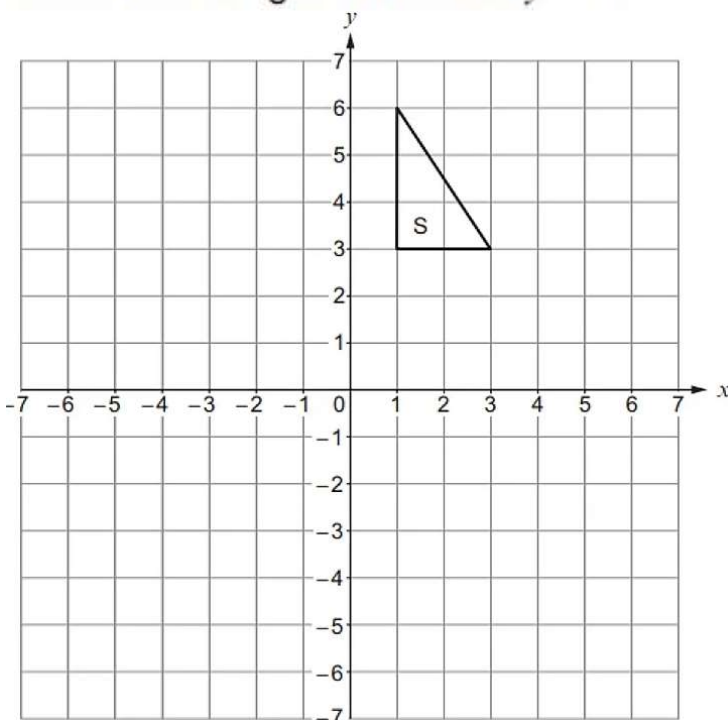


(ii) Write down the column vector that will reverse the translation in part (i). [1]

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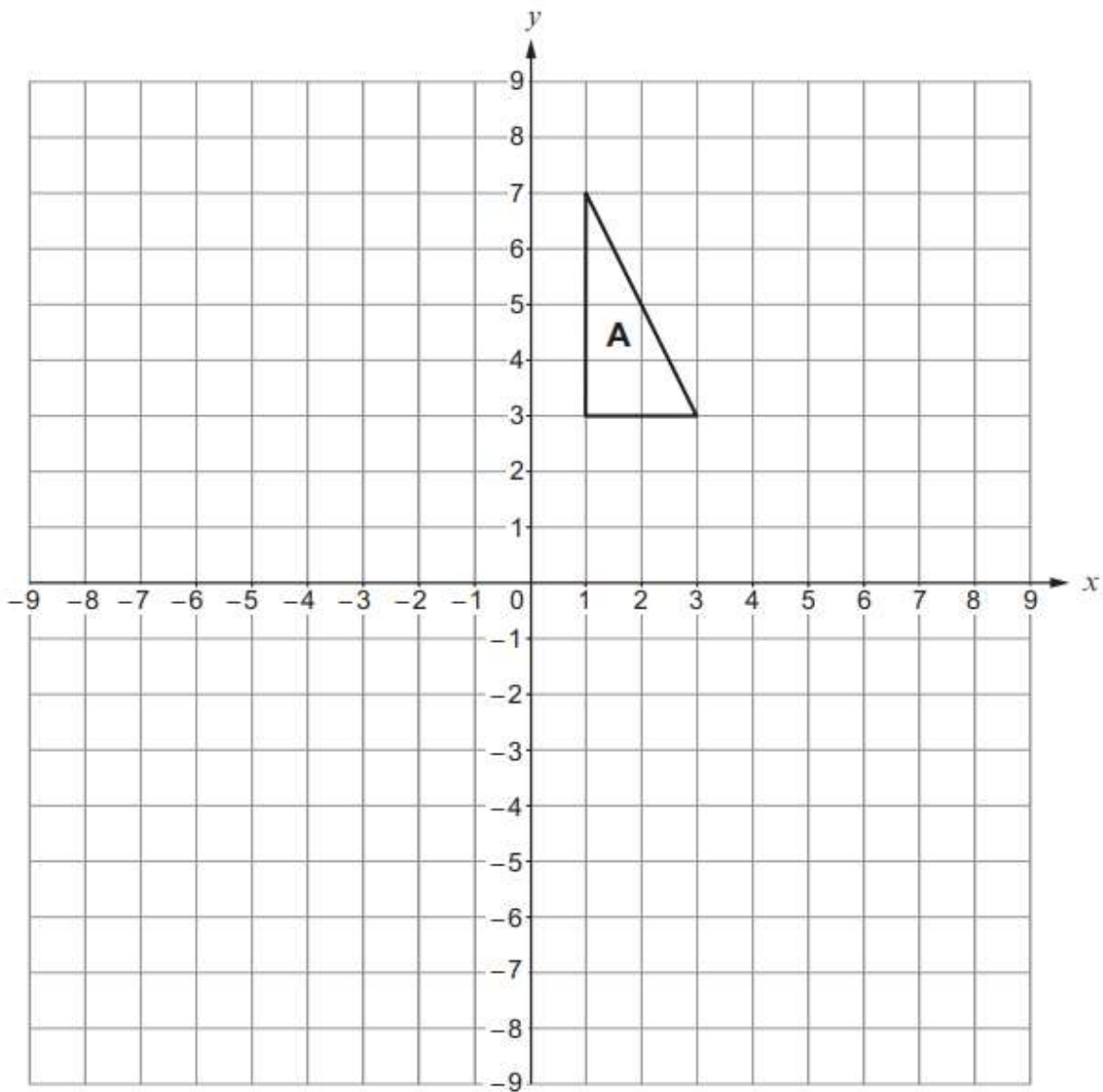
Higher Maths Nov 2016 P2 Q1a

Reflect the triangle S in the line  $y = x$ .

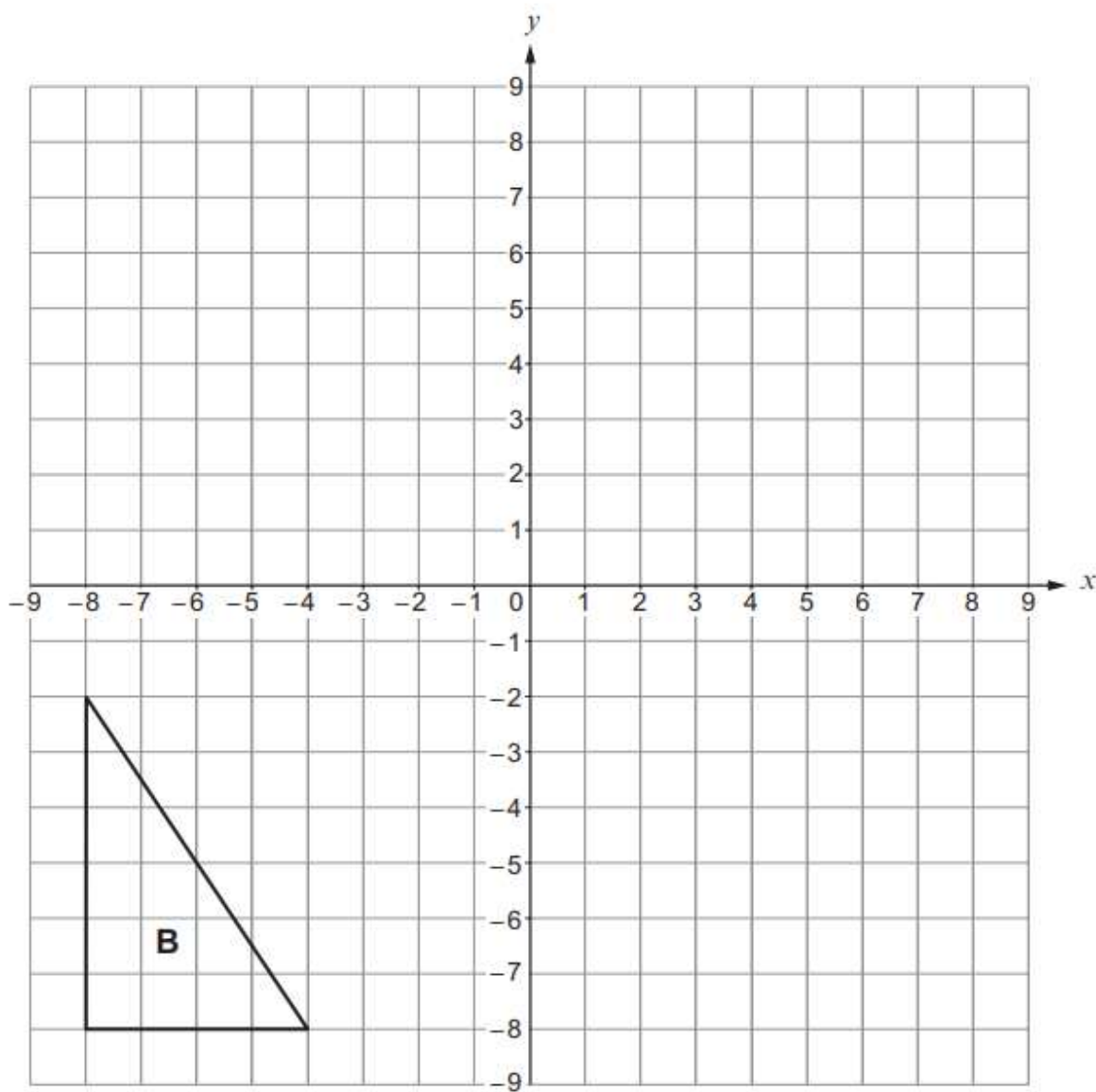


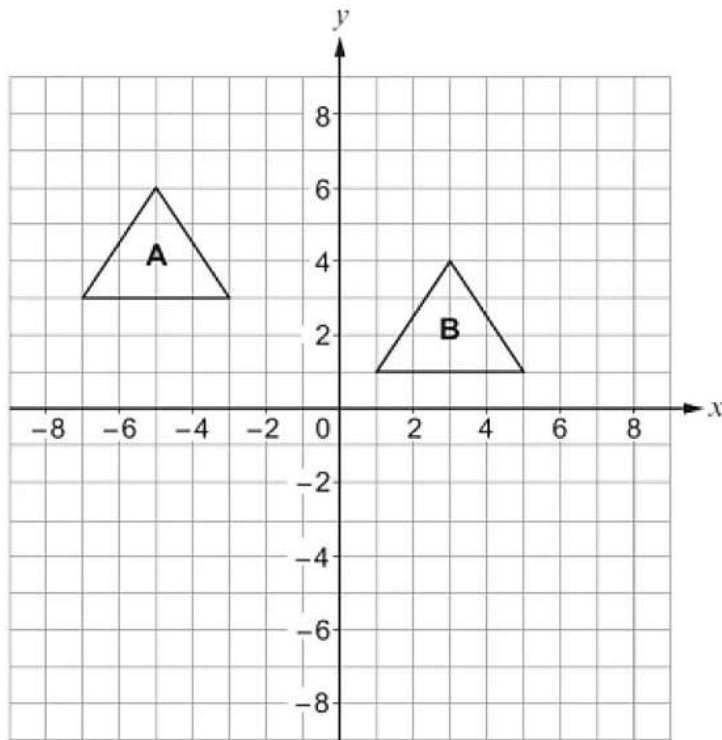
(a) Rotate triangle A through  $90^\circ$  anticlockwise, about the point  $(-2, 3)$ .

[2]



- (b) Enlarge triangle B by a scale factor of  $\frac{1}{2}$ , using (0, 0) as the centre of enlargement. [2]





Which one of the following vectors describes the translation?  
Circle your answer.

[1]

Which one of the following vectors describes the translation?  
Circle your answer.

[1]

$$\begin{pmatrix} 8 \\ -2 \end{pmatrix}$$

$$\begin{pmatrix} 2 \\ -8 \end{pmatrix}$$

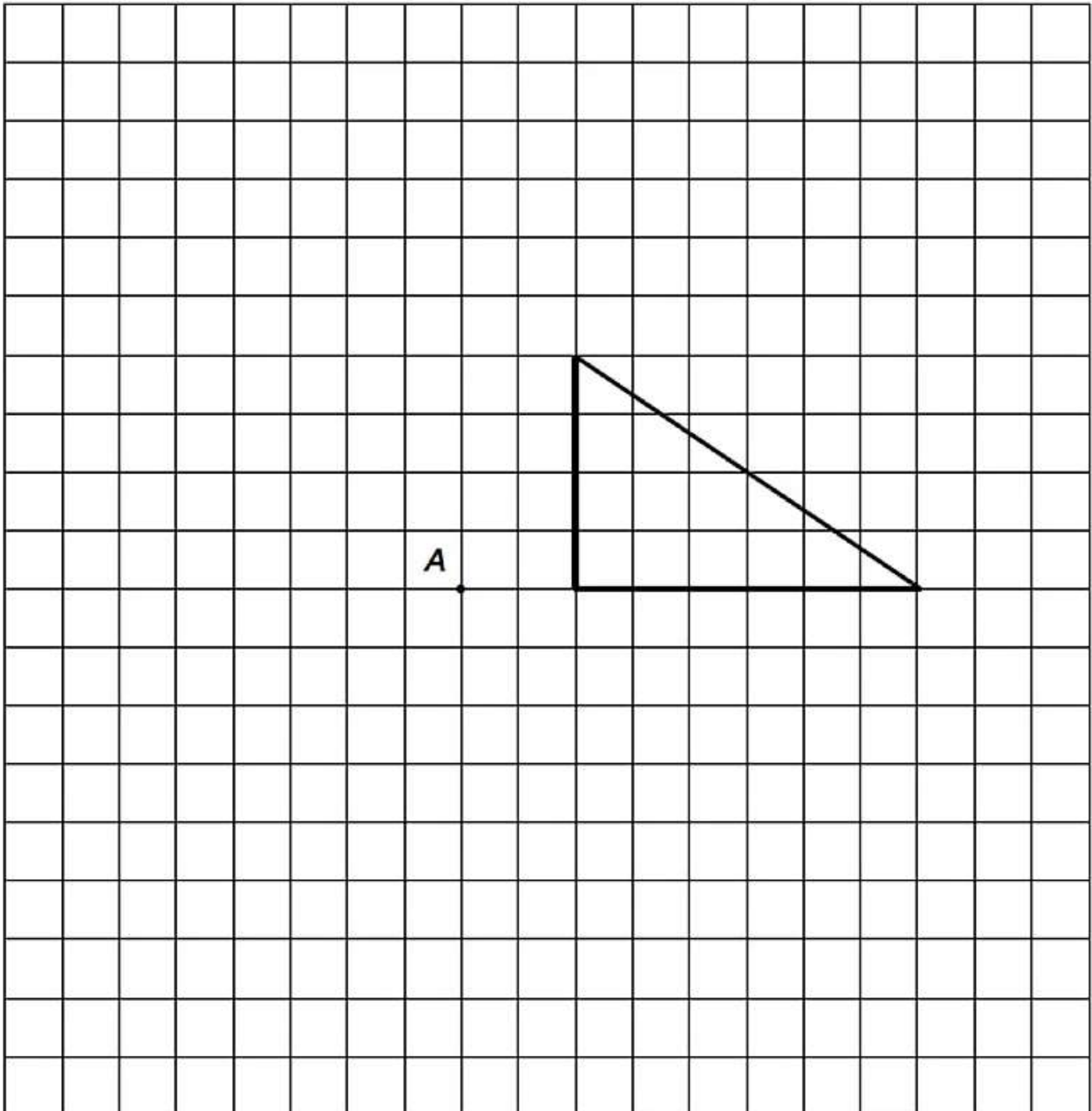
$$\begin{pmatrix} -8 \\ -2 \end{pmatrix}$$

$$\begin{pmatrix} -2 \\ 8 \end{pmatrix}$$

$$\begin{pmatrix} -8 \\ 2 \end{pmatrix}$$

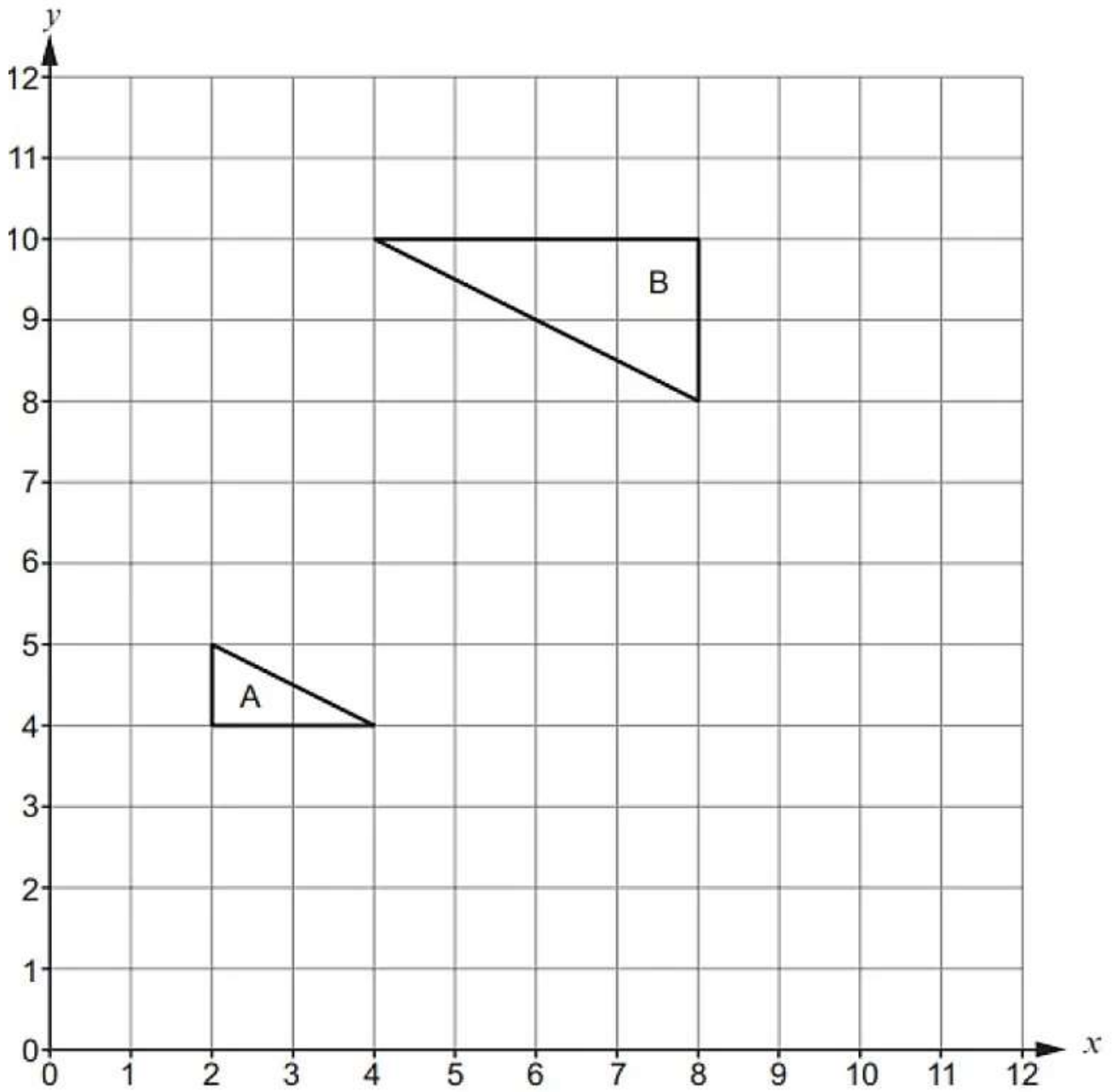
On the grid below, draw an enlargement of the given shape using a scale factor of  $-\frac{1}{2}$  and centre **A**.

[3]

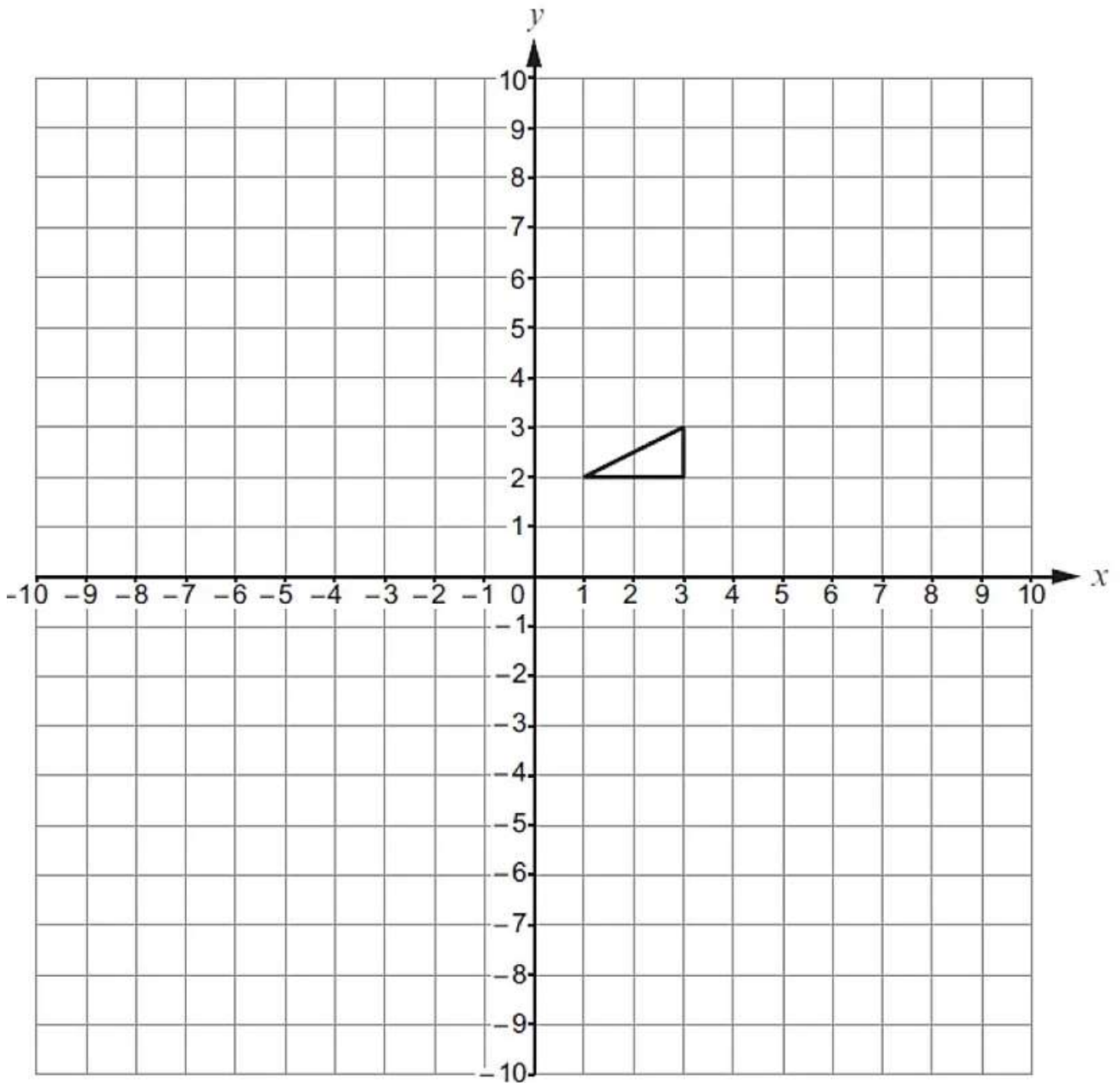


Describe fully the **single** transformation which maps triangle A onto triangle B.

[3]



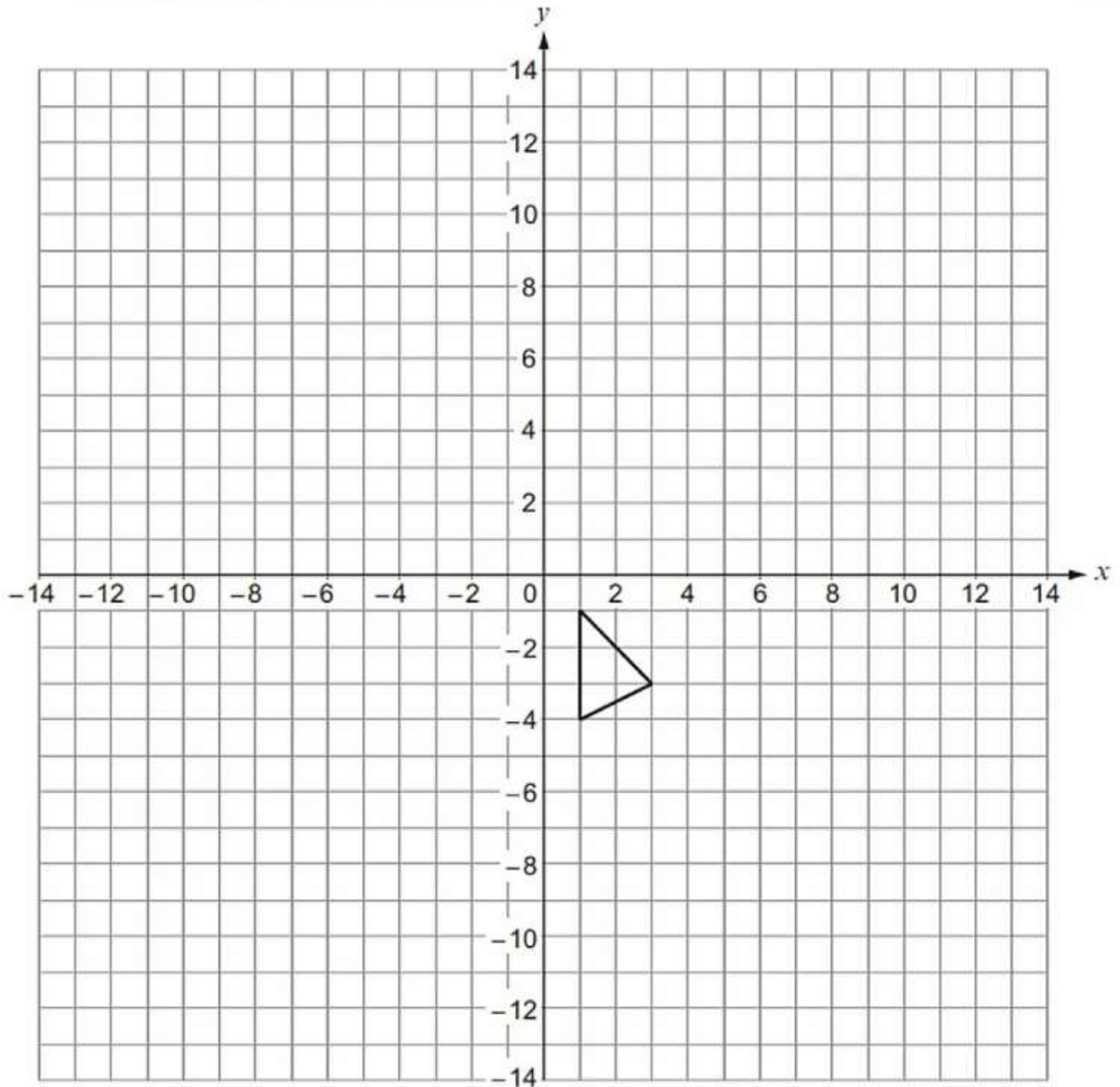
Enlarge the triangle below by a scale factor of  $-2$ . Use the origin as the centre of enlargement.  
[2]



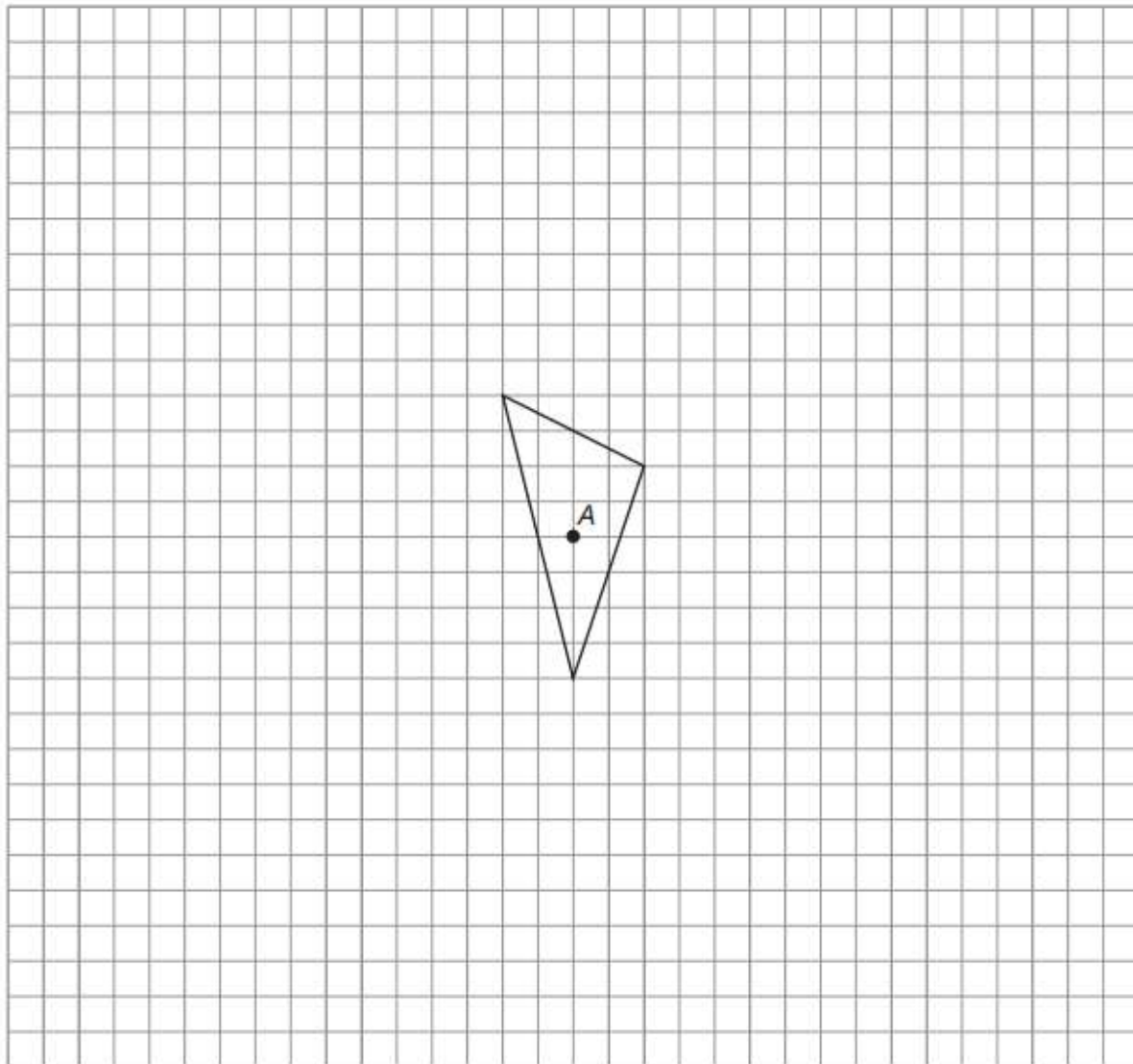
Draw the enlargement of the given triangle, using

- a scale factor of  $-2$ ,
- $(-2, 1)$  as the centre of enlargement.

[3]



11. Enlarge the given triangle by a scale factor of  $-3$  using point  $A$  as the centre of enlargement. [2]



Describe fully a **single** transformation that transforms shape A onto shape B.

[3]

