

KumarMaths

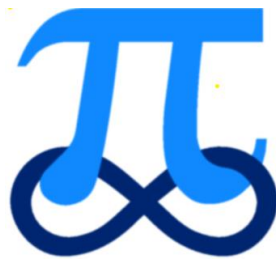
Pearson Edexcel

GCSE Maths (9 – 1)

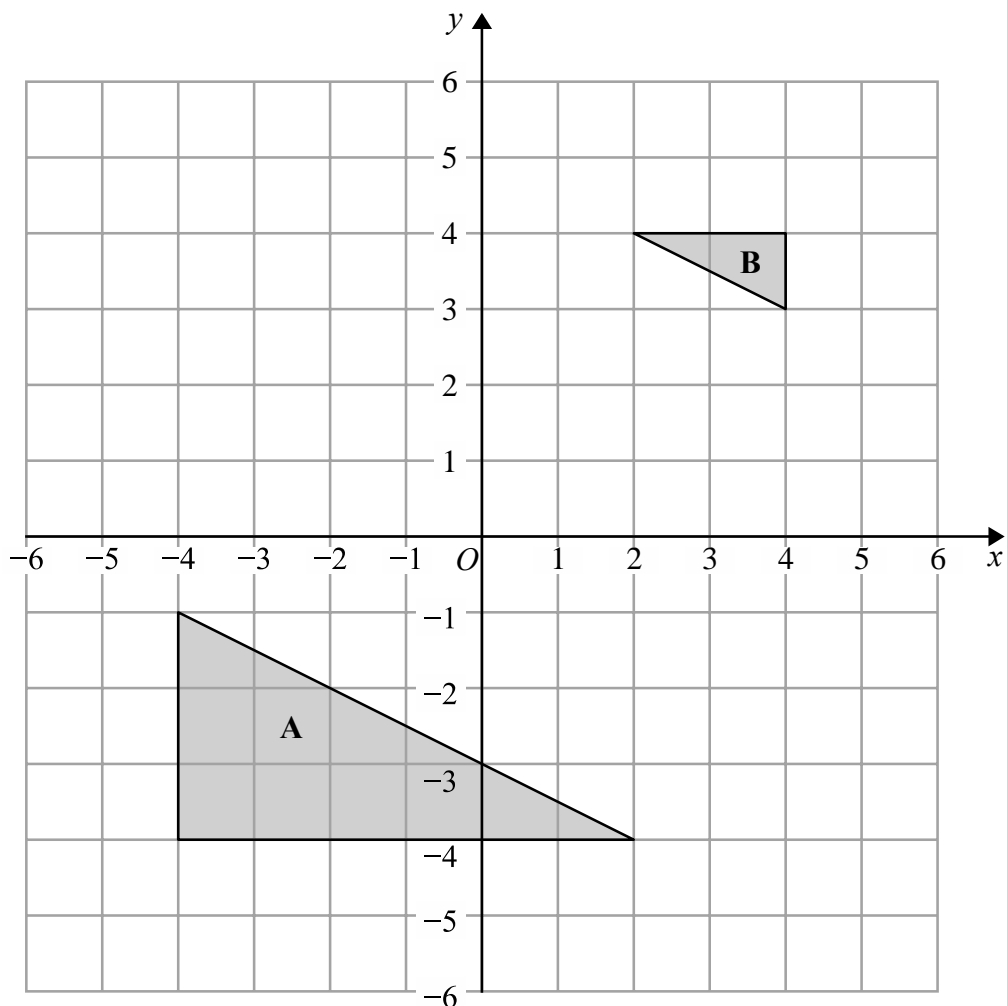
Past Exam Questions by

Topics:

Transformations 1.



1.

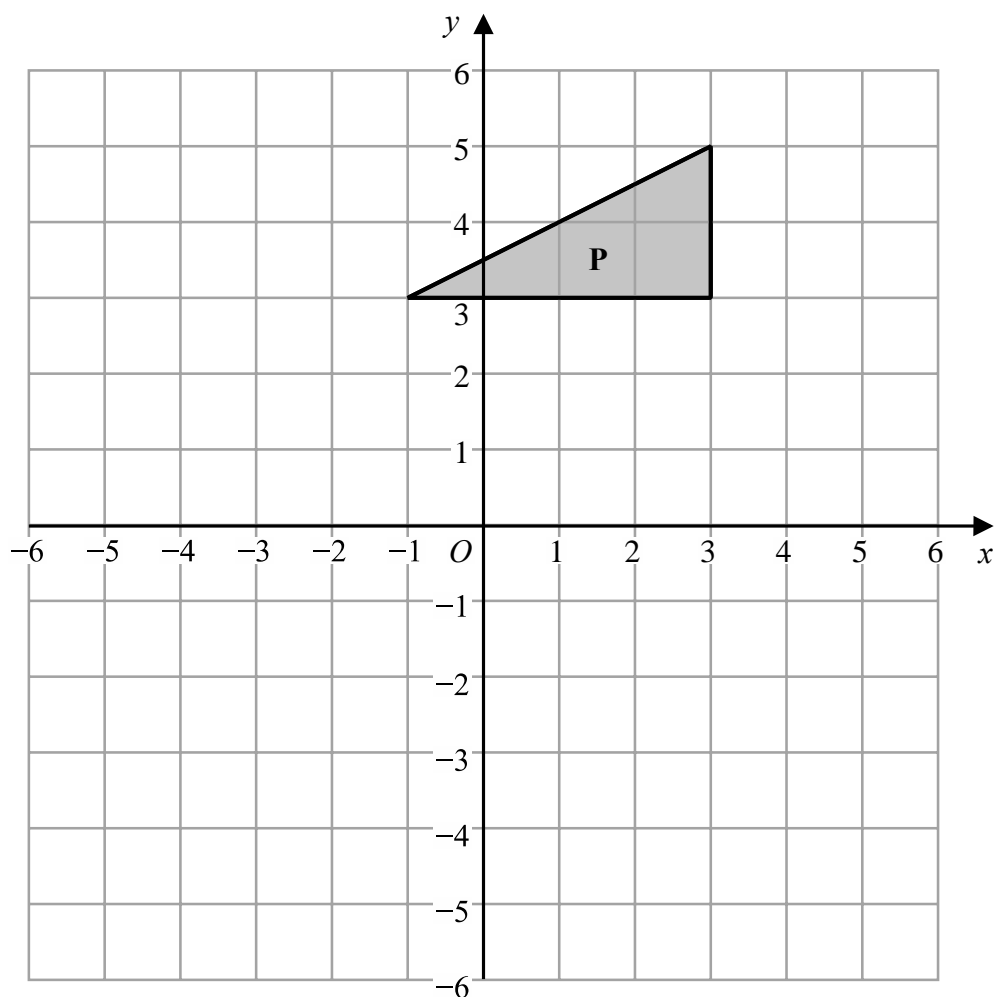


Describe fully the single transformation that maps triangle A onto triangle B.

.....

(Total 2 marks)

2.



Triangle **P** is reflected in the line $y = -x$ to give triangle **Q**.

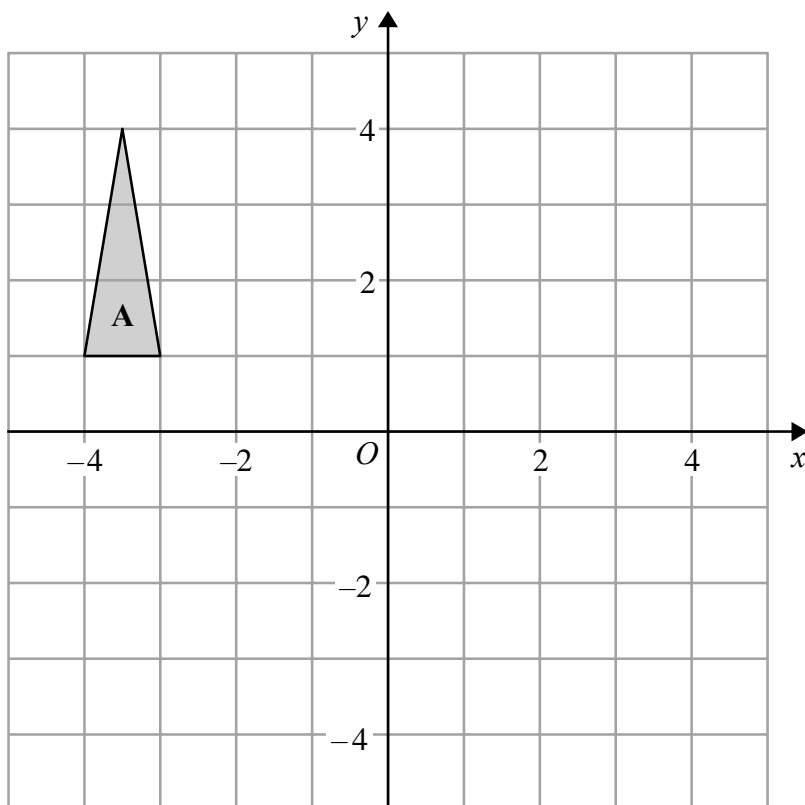
Triangle **Q** is reflected in the line $x = -1$ to give triangle **R**.

Describe fully the single transformation that maps triangle **R** to triangle **P**.

.....

(Total 3 marks)

3.



Triangle **A** is transformed by the combined transformation of a rotation of 180° about the point $(-2, 0)$ followed by a translation with vector $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$

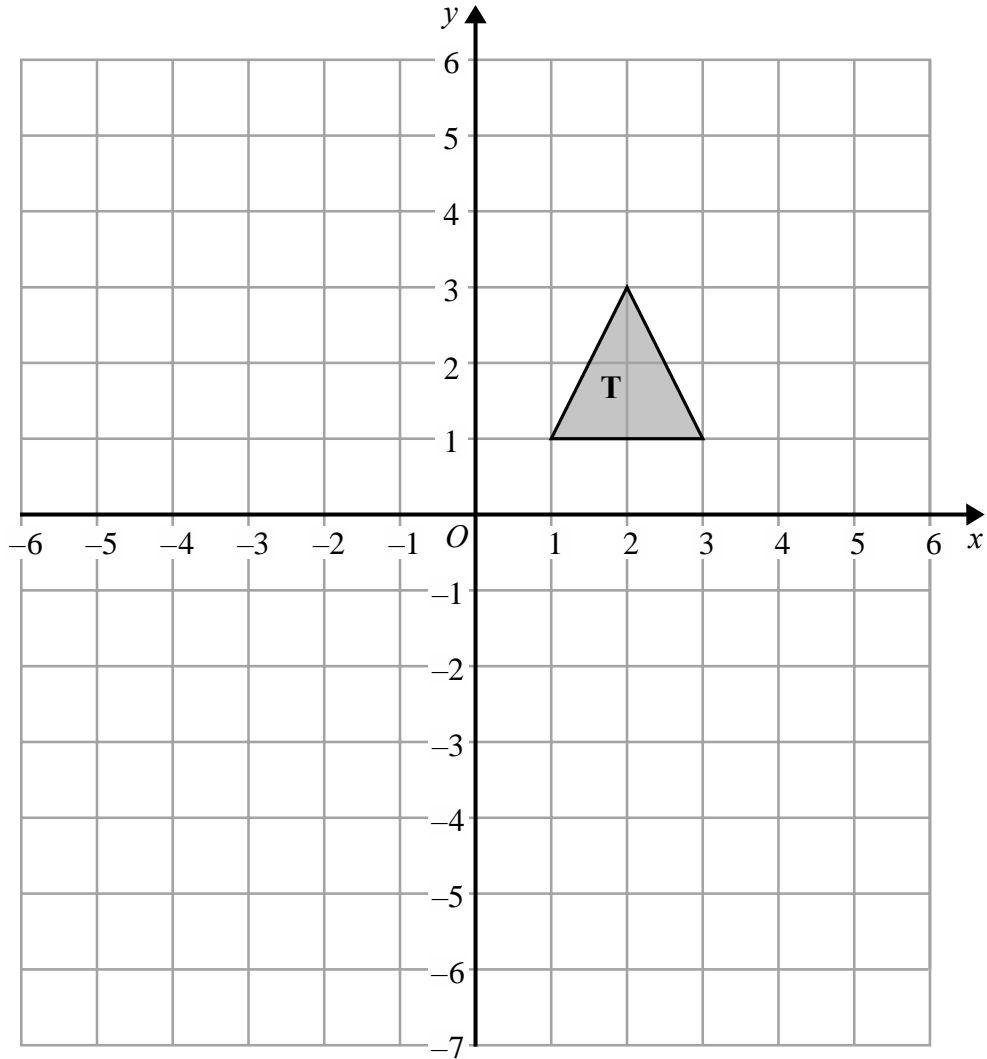
One point on triangle **A** is invariant under the combined transformation.

Find the coordinates of this point.

(..... ,)

(Total 2 marks)

4.



Shape **T** is reflected in the line $x = -1$ to give shape **R**.

Shape **R** is reflected in the line $y = -2$ to give shape **S**.

Describe the **single** transformation that will map shape **T** to shape **S**.

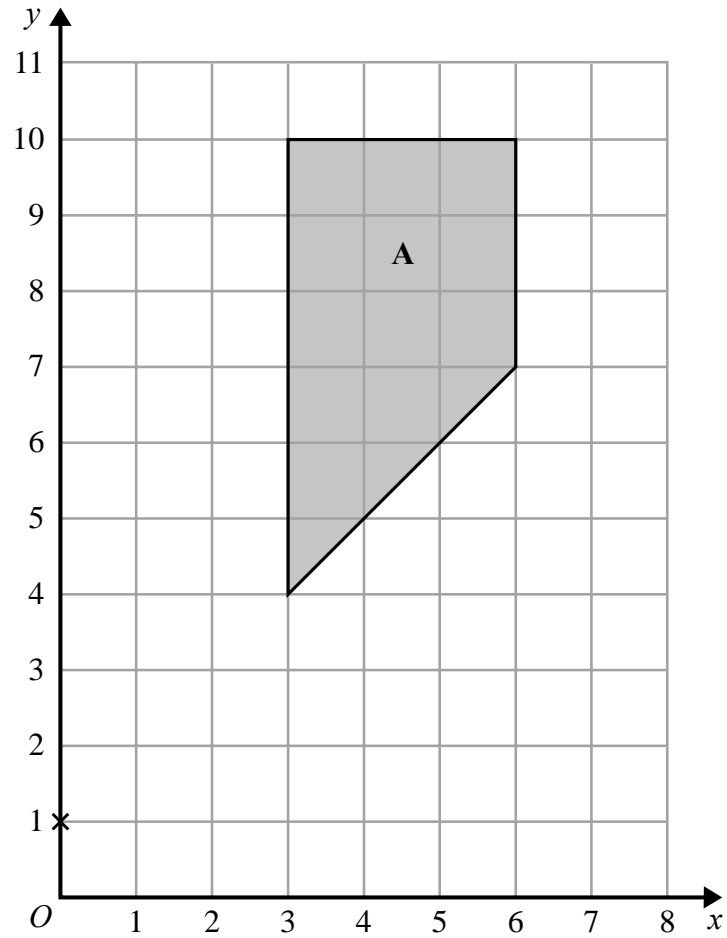
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(Total 2 marks)

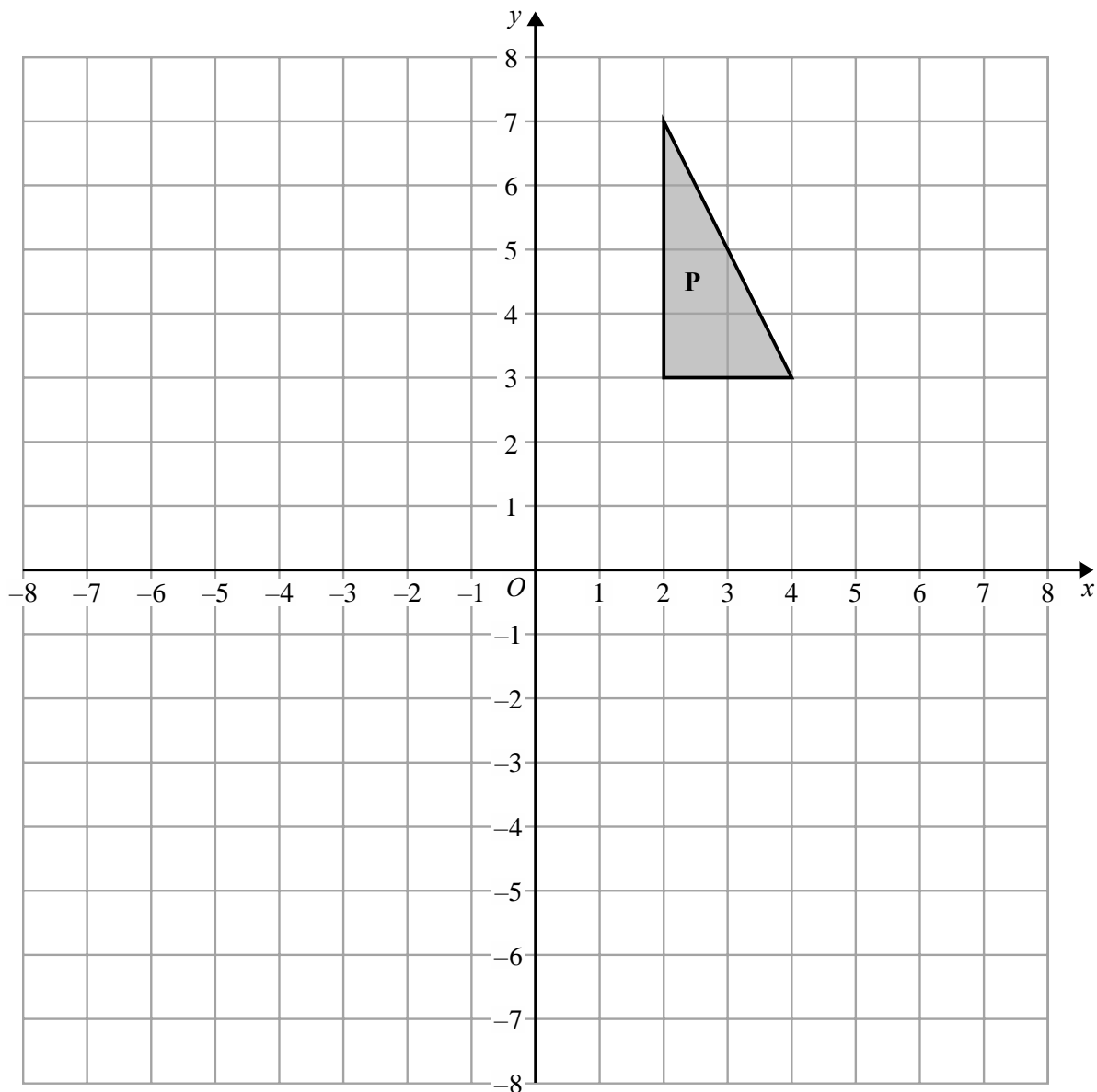
5.



Enlarge shape **A** by scale factor $\frac{1}{3}$ centre (0, 1)

(Total 2 marks)

6.

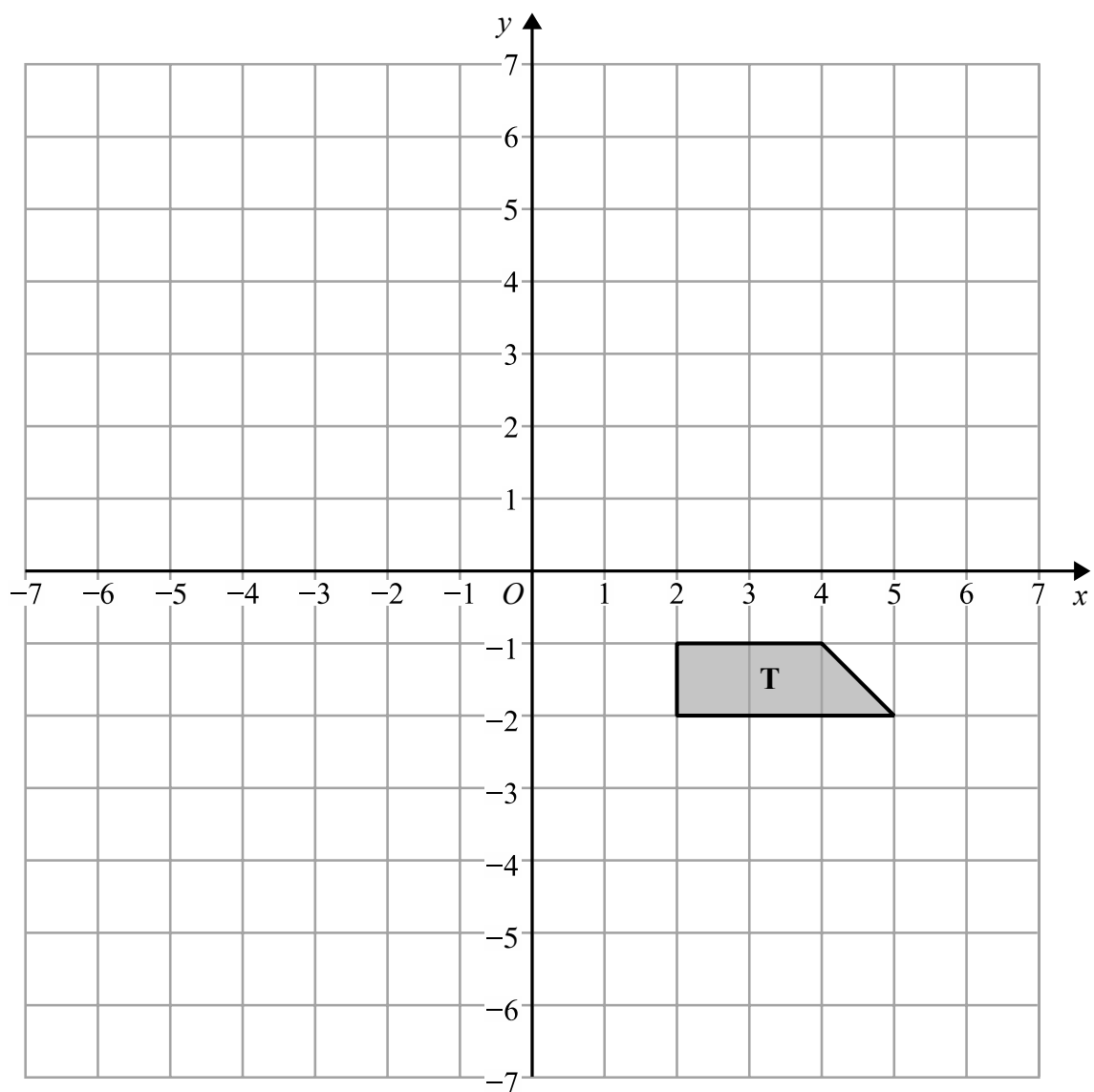


Enlarge shape **P** by scale factor $-\frac{1}{2}$ with centre of enlargement (0, 0).

Label your image **Q**.

(Total 2 marks)

7.



(a) Rotate trapezium **T** 180° about the origin.
Label the new trapezium **A**.

(1)

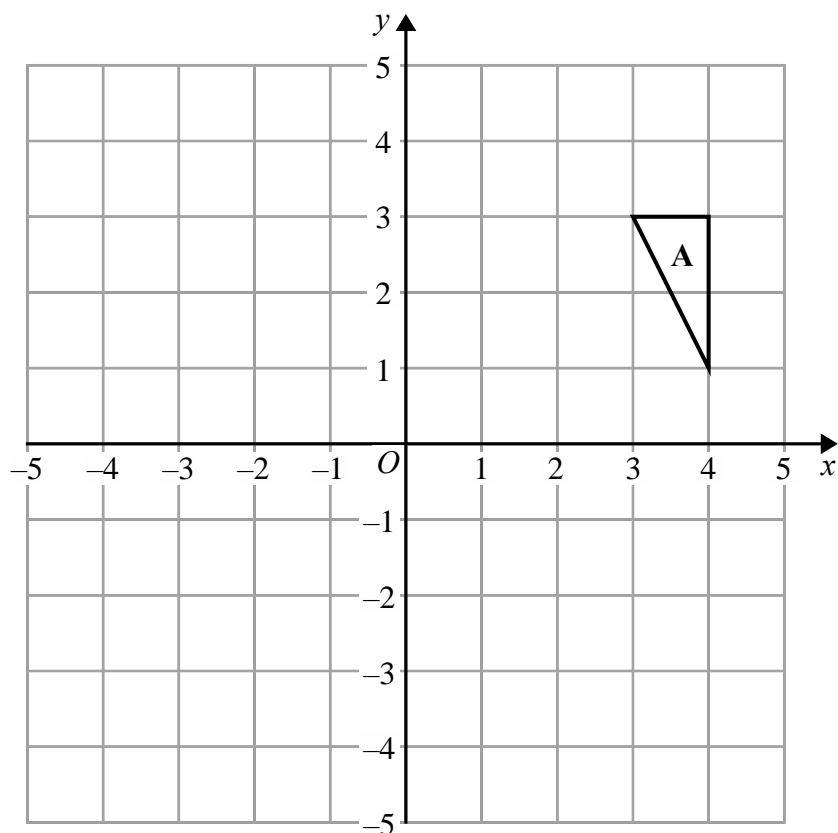
(b) Translate trapezium **T** by the vector $\begin{pmatrix} -1 \\ -3 \end{pmatrix}$

Label the new trapezium **B**.

(1)

(Total 2 marks)

8. The diagram shows triangle **A** drawn on a grid.



Kyle reflects triangle **A** in the x -axis to get triangle **B**.

He then reflects triangle **B** in the line $y = x$ to get triangle **C**.

Amy reflects triangle **A** in the line $y = x$ to get triangle **D**.

She is then going to reflect triangle **D** in the x -axis to get triangle **E**.

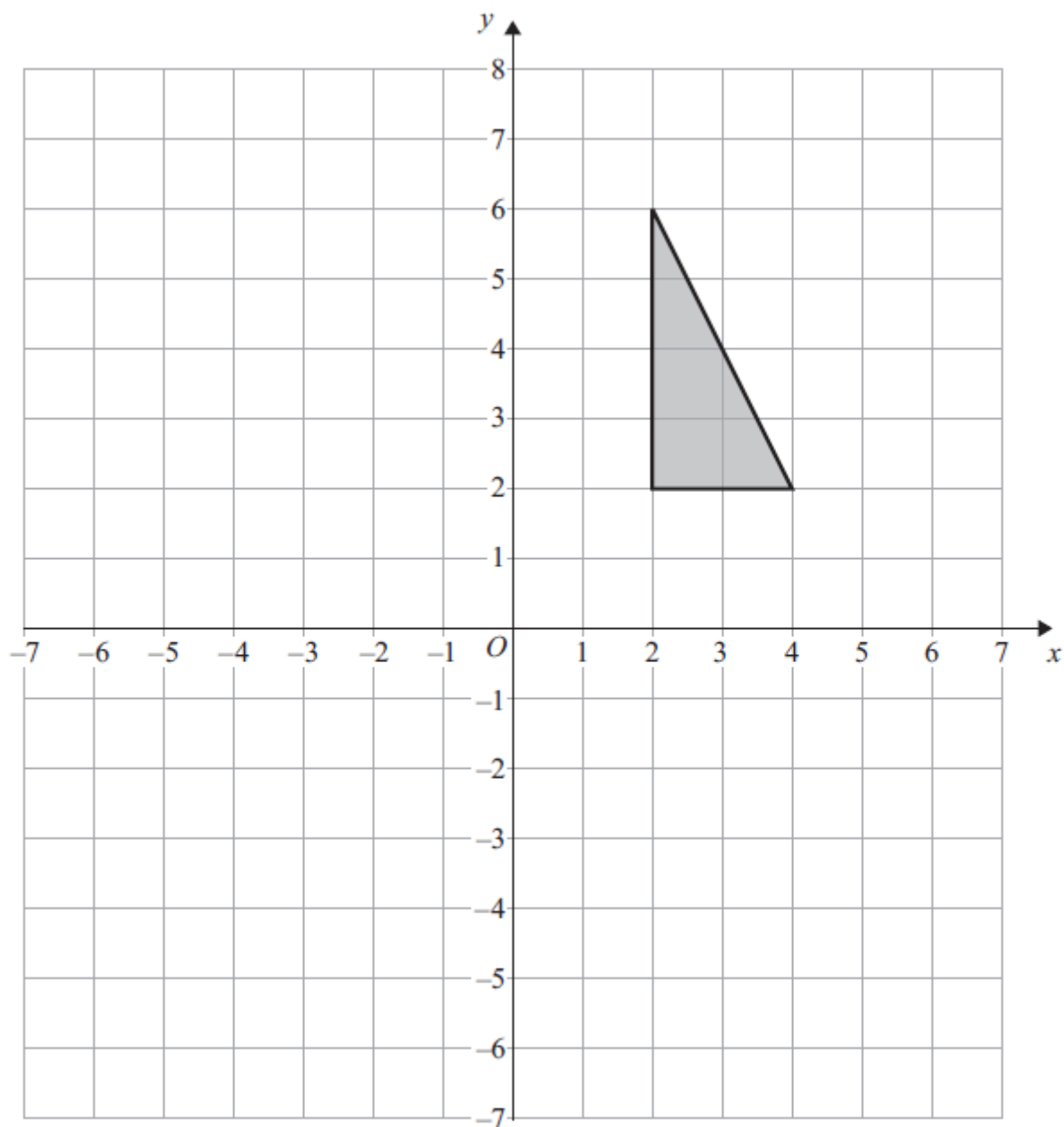
Amy says that triangle **E** should be in the same position as triangle **C**.

Is Amy correct?

You must show how you get your answer.

(Total 3 marks)

9.



Enlarge the shaded shape by a scale factor of $-1\frac{1}{2}$, centre (0, 4).

(Total 3 marks)