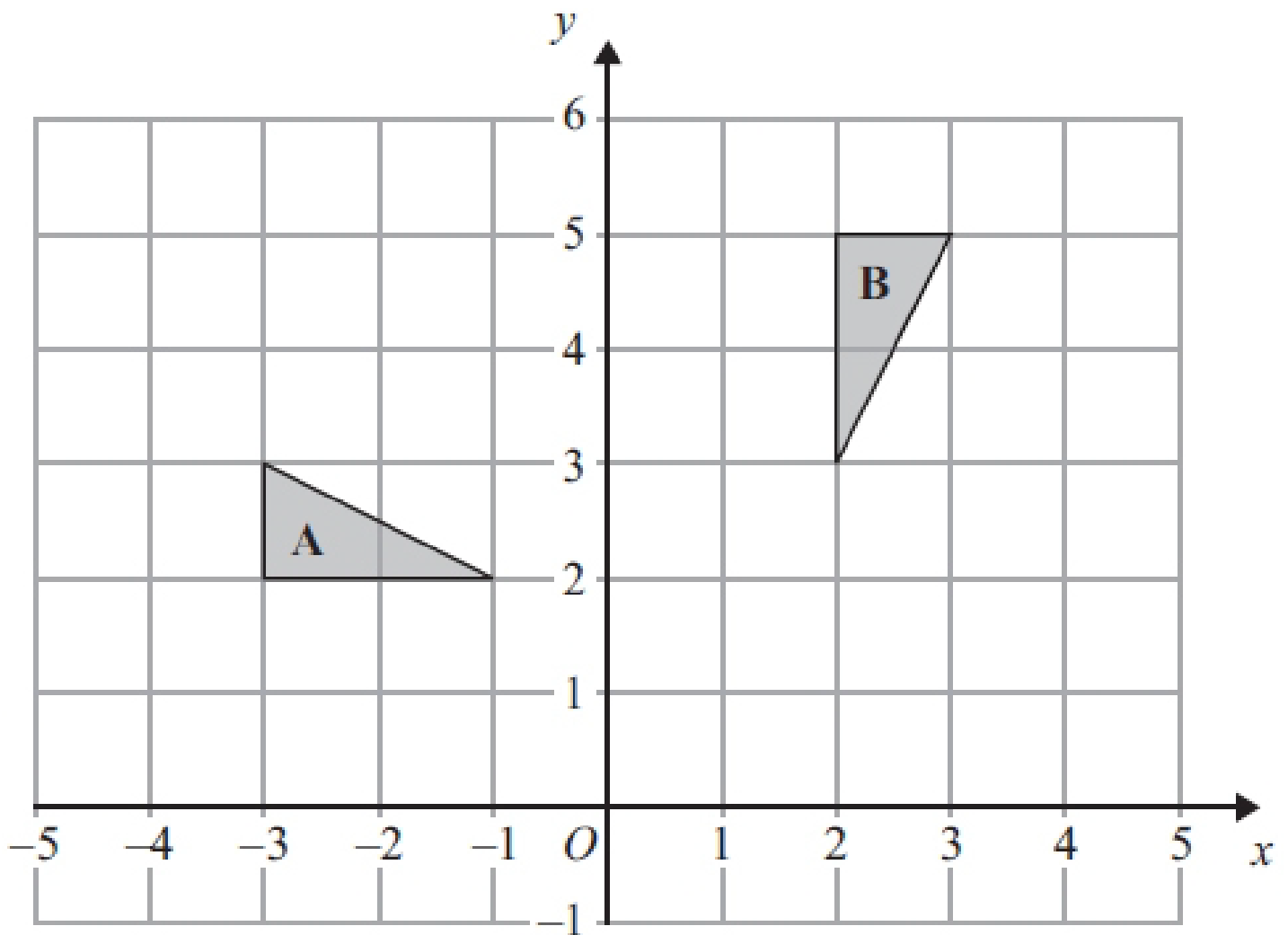


Rotation – GCSE Exam Questions

Q1.

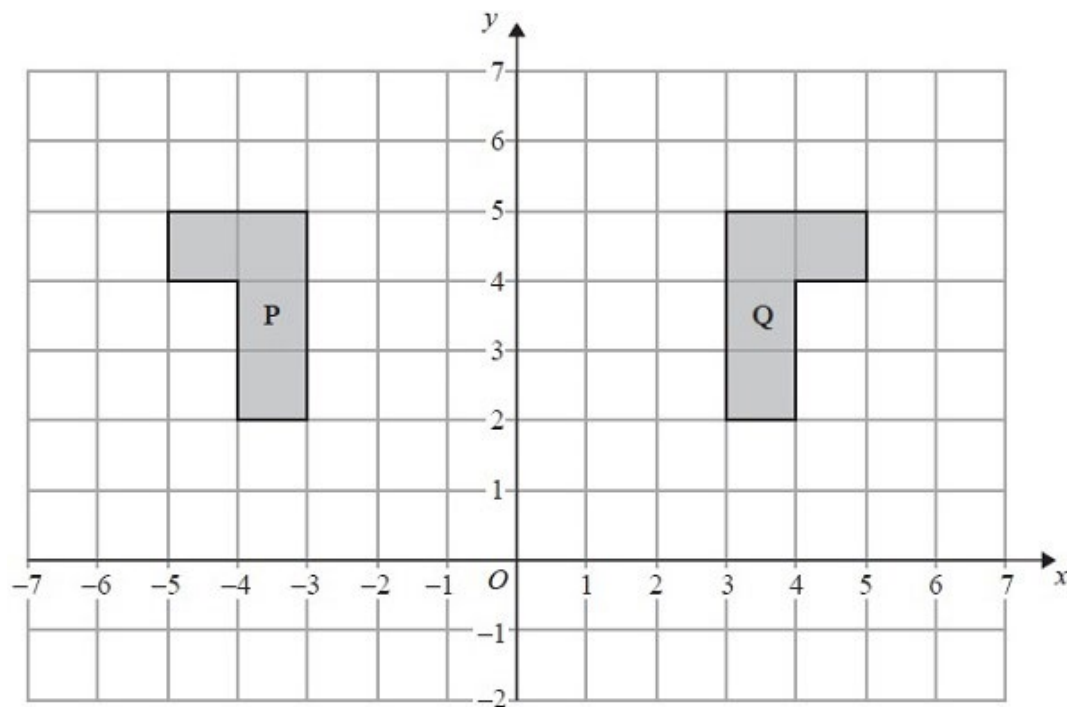


Describe fully the single transformation which maps triangle **A** onto triangle **B**.

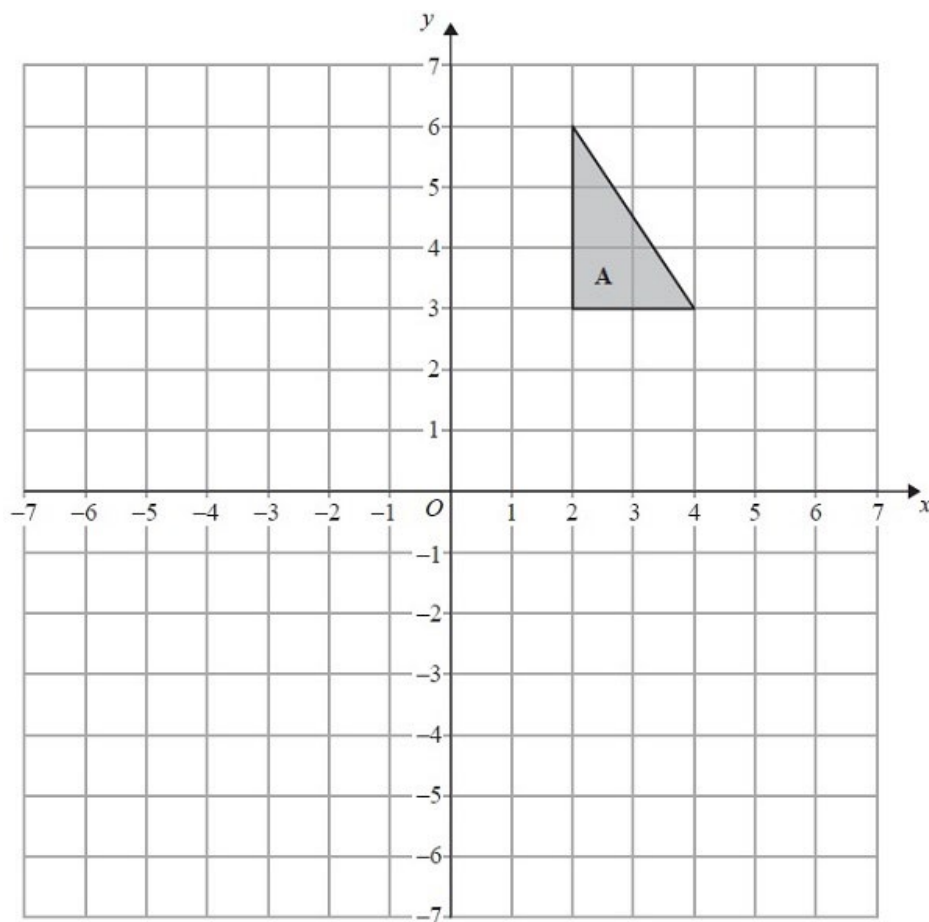
(Total for Question is 3 marks)

Q2.

Two shapes are shown on the grid.



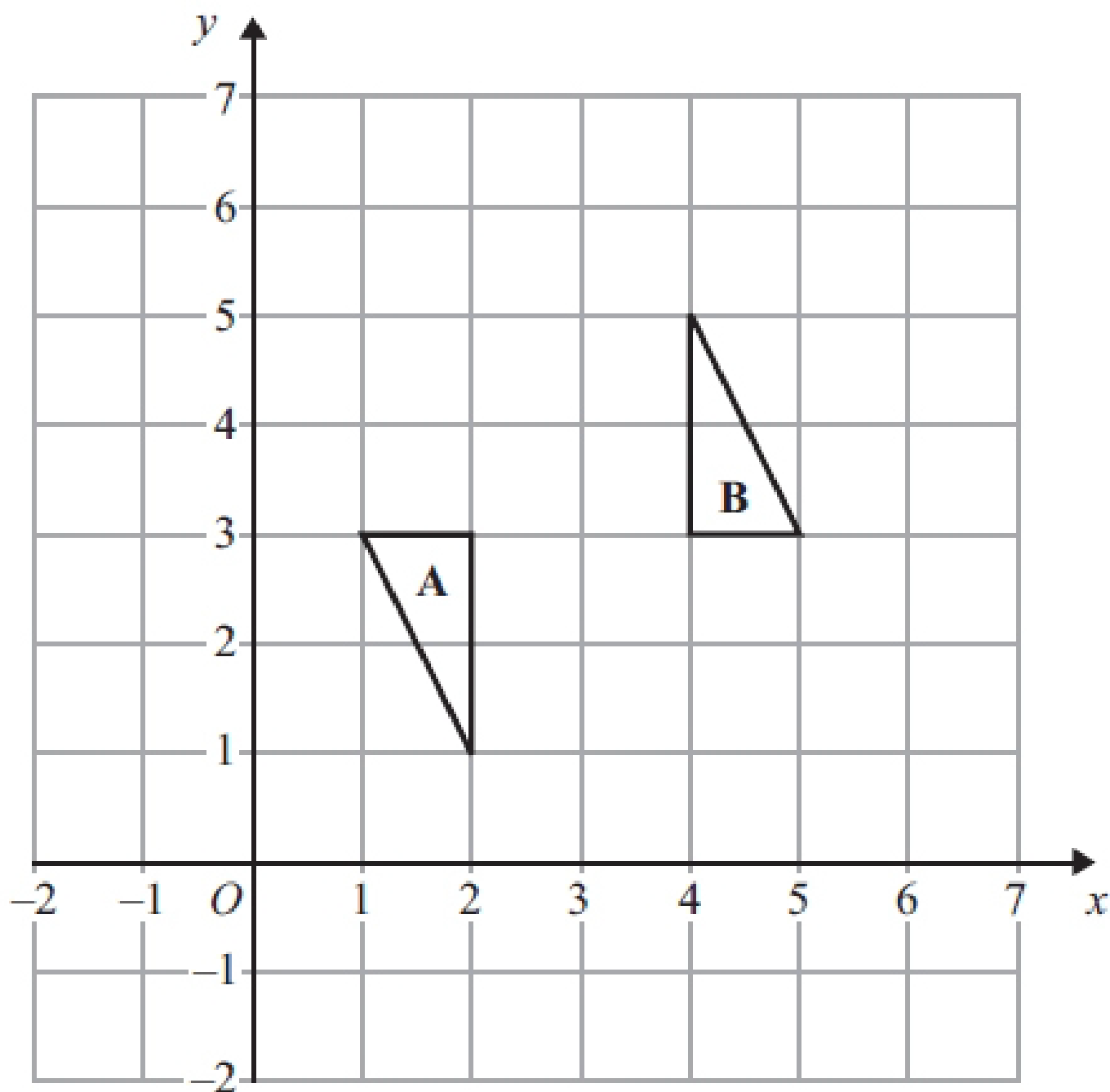
(a) Describe fully the single transformation that maps shape **P** onto shape **Q**.



(b) Rotate triangle **A** 90° clockwise about the point $(0, 2)$. Label the new triangle **B**.

(Total for Question is 4 marks)

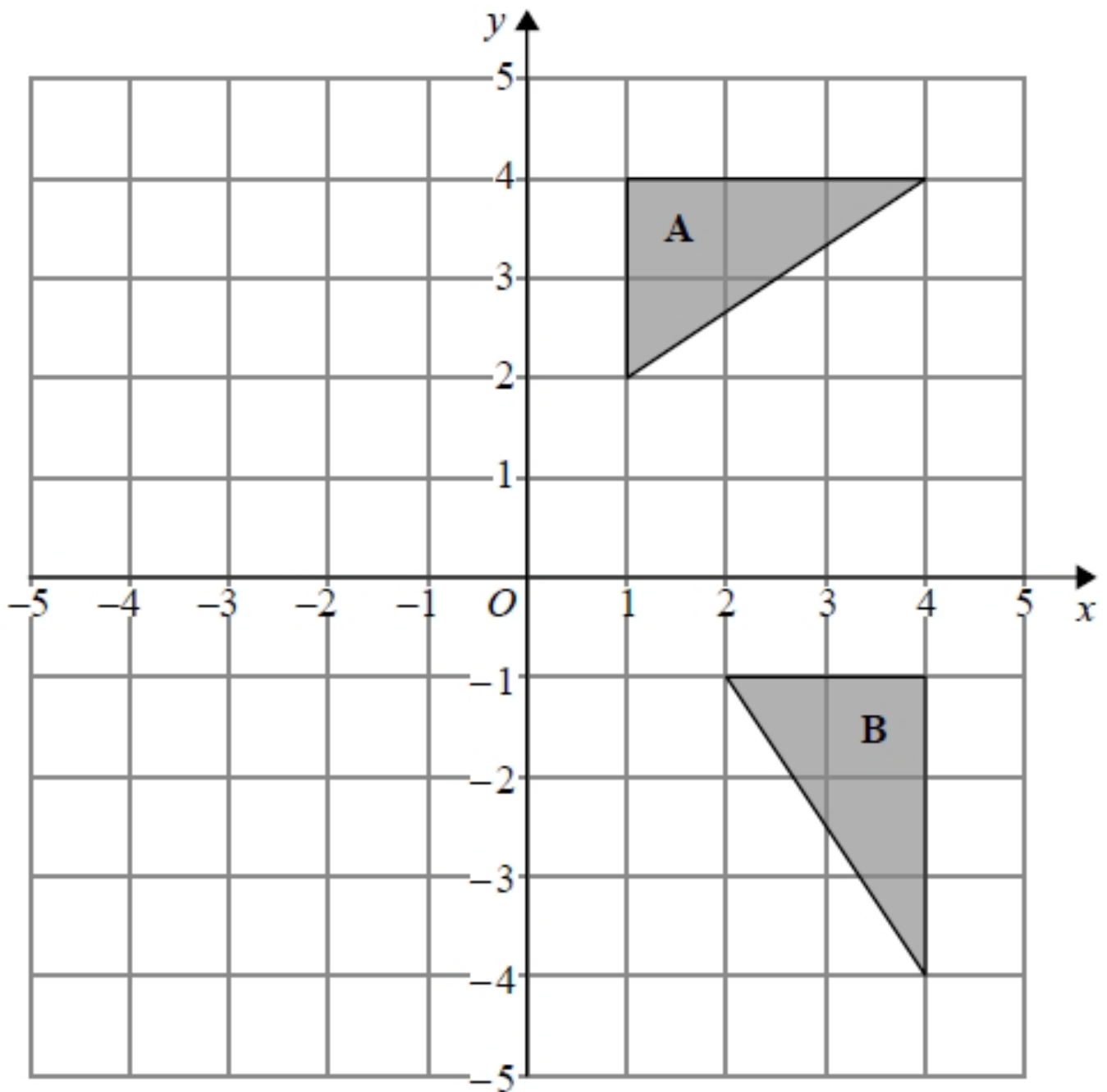
Q3.



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

(Total for Question is 3 marks)

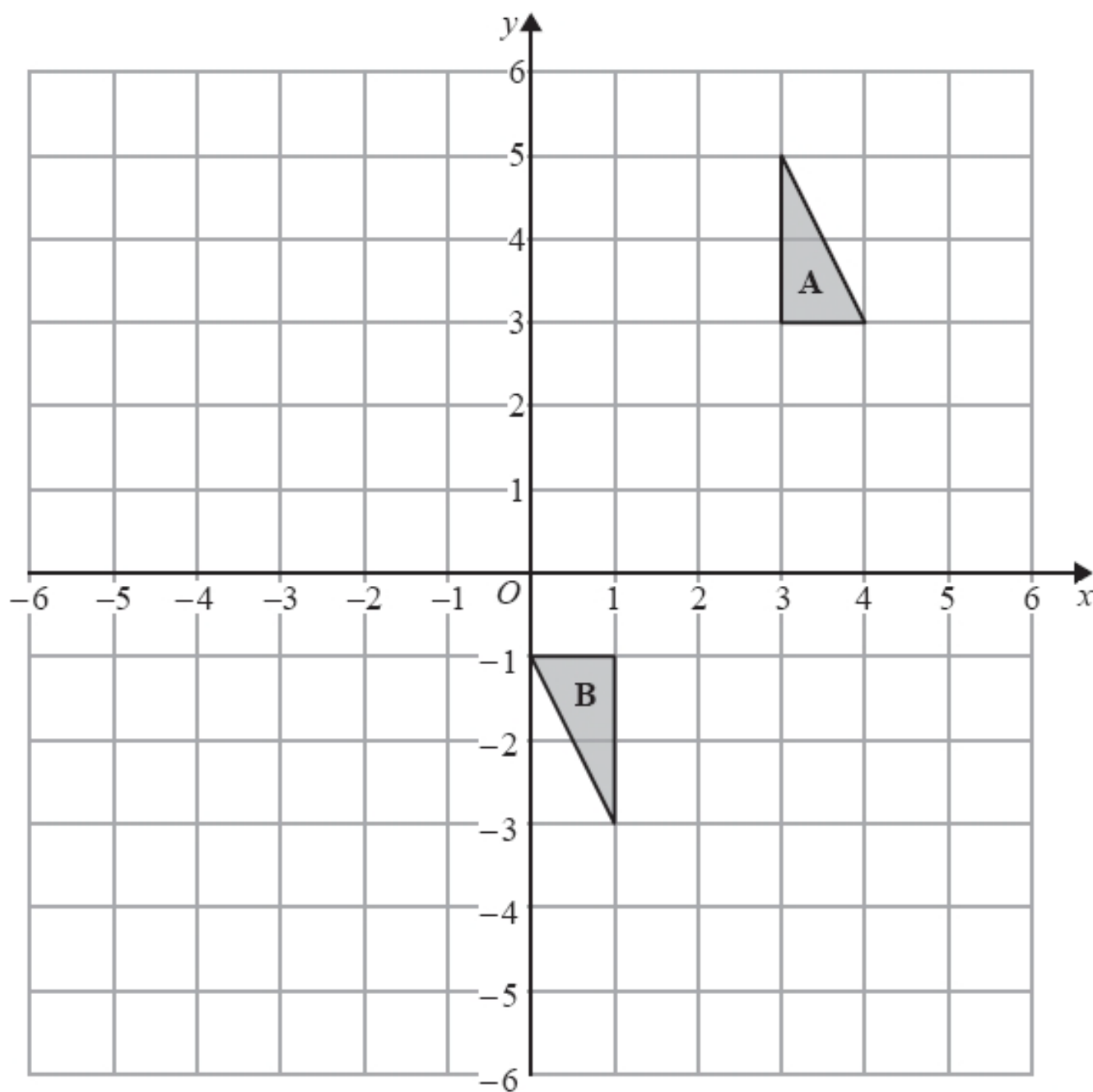
Q4.



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

(Total for question = 2 marks)

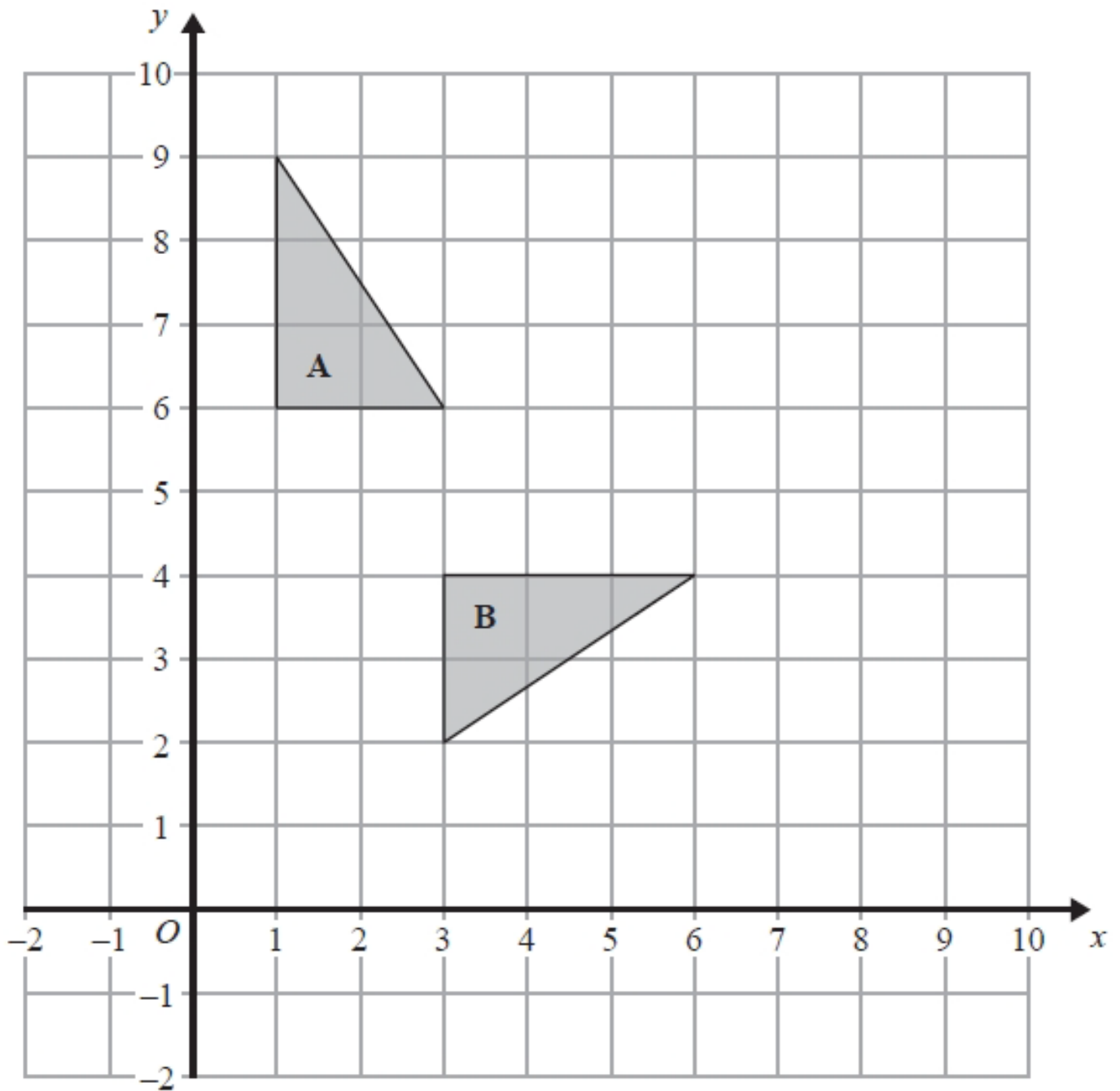
Q5.



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

(Total for question = 3 marks)

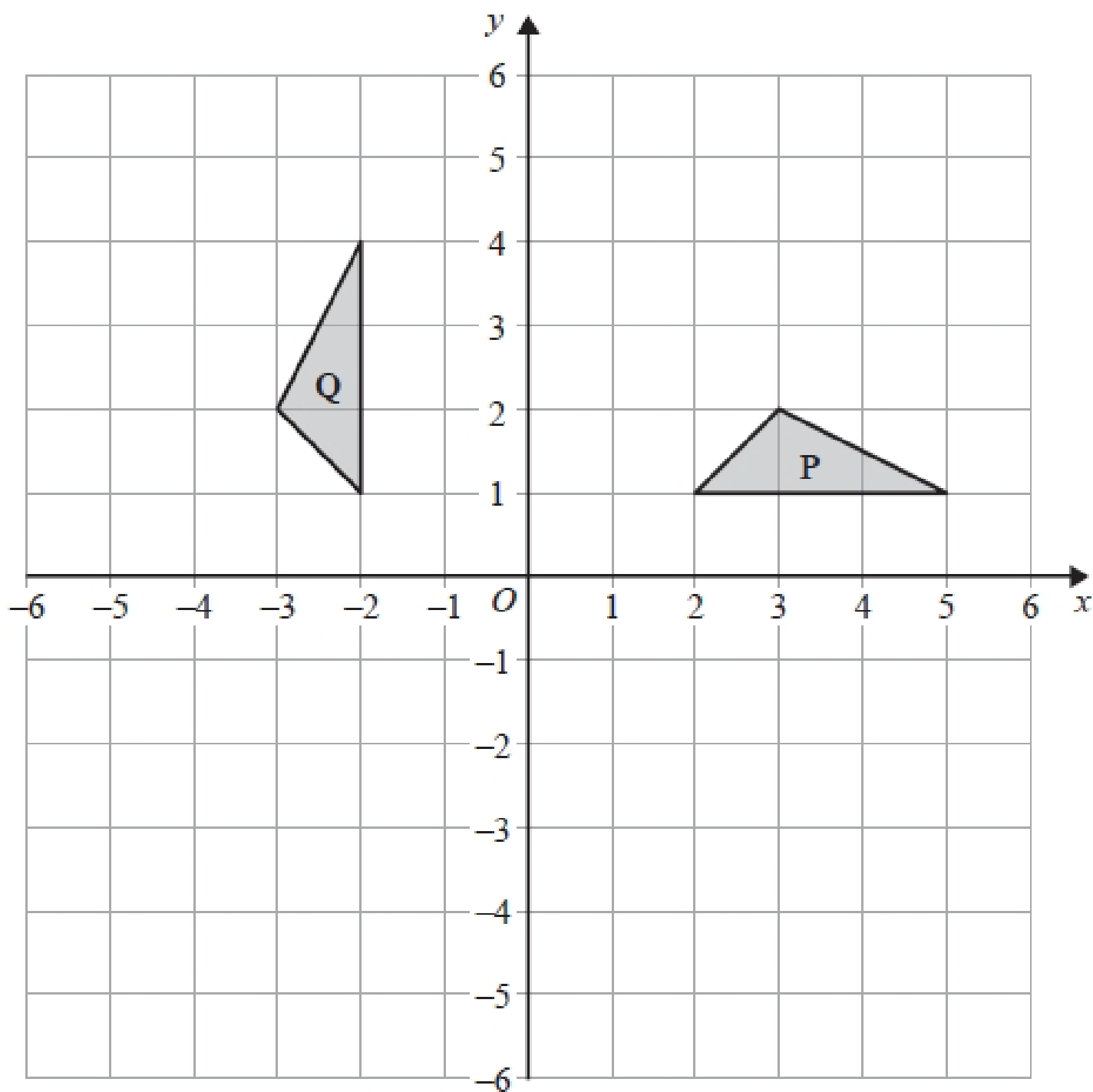
Q6.



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

(Total for question = 3 marks)

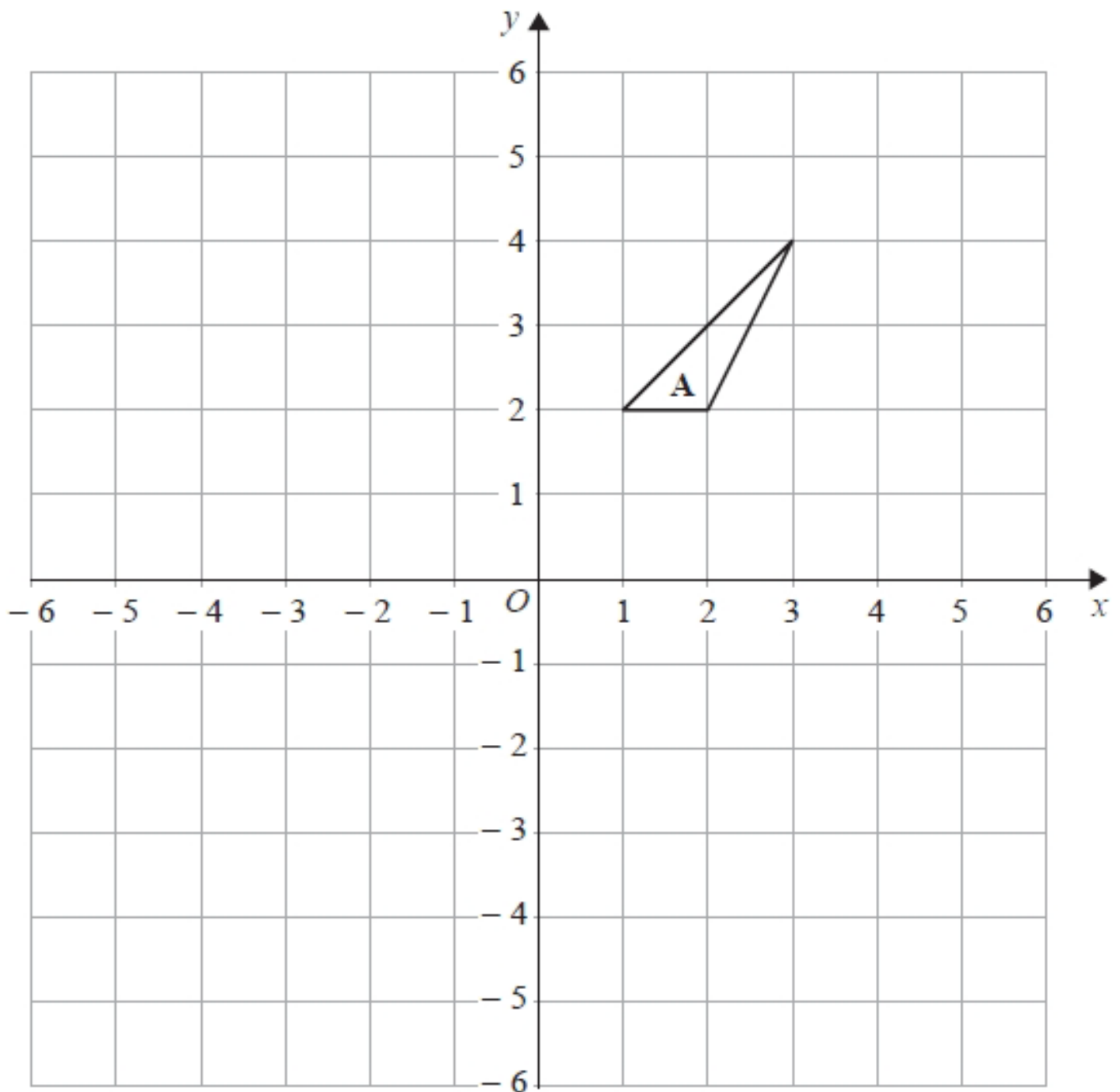
Q7.



Describe fully the single transformation that maps triangle **P** onto triangle **Q**.

(Total for question = 2 marks)

Q8.



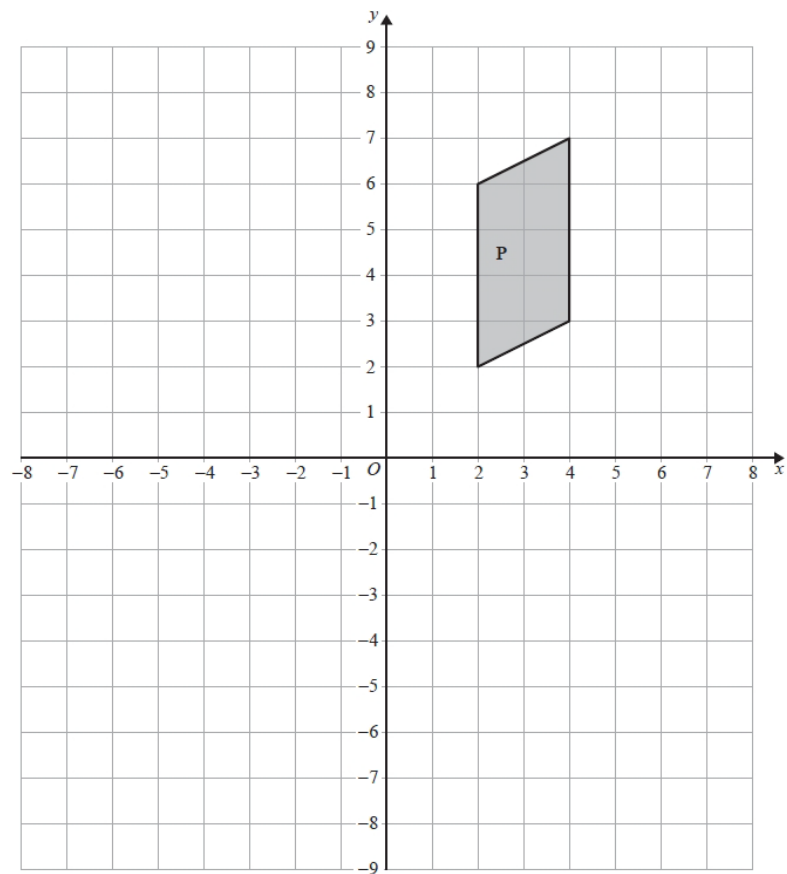
Triangle **A** is rotated 90° clockwise about the point $(0, 1)$ to give triangle **B**.

Triangle **B** is translated by the vector $\begin{pmatrix} -3 \\ -1 \end{pmatrix}$ to give triangle **C**.

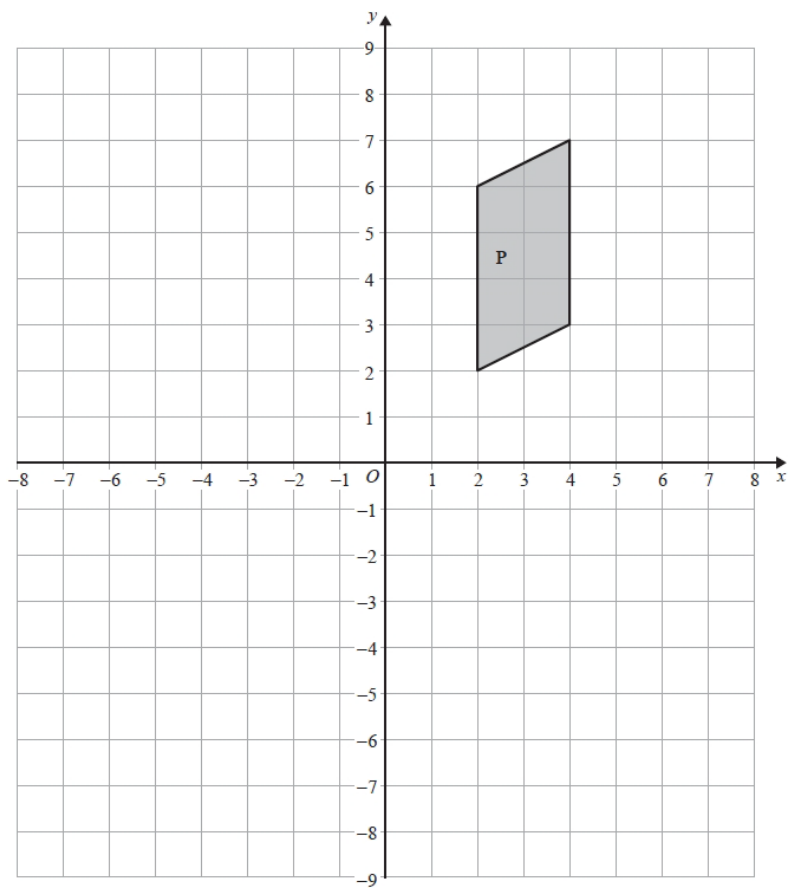
Describe fully the single transformation that maps triangle **A** onto triangle **C**.

(Total for question = 3 marks)

Q9.



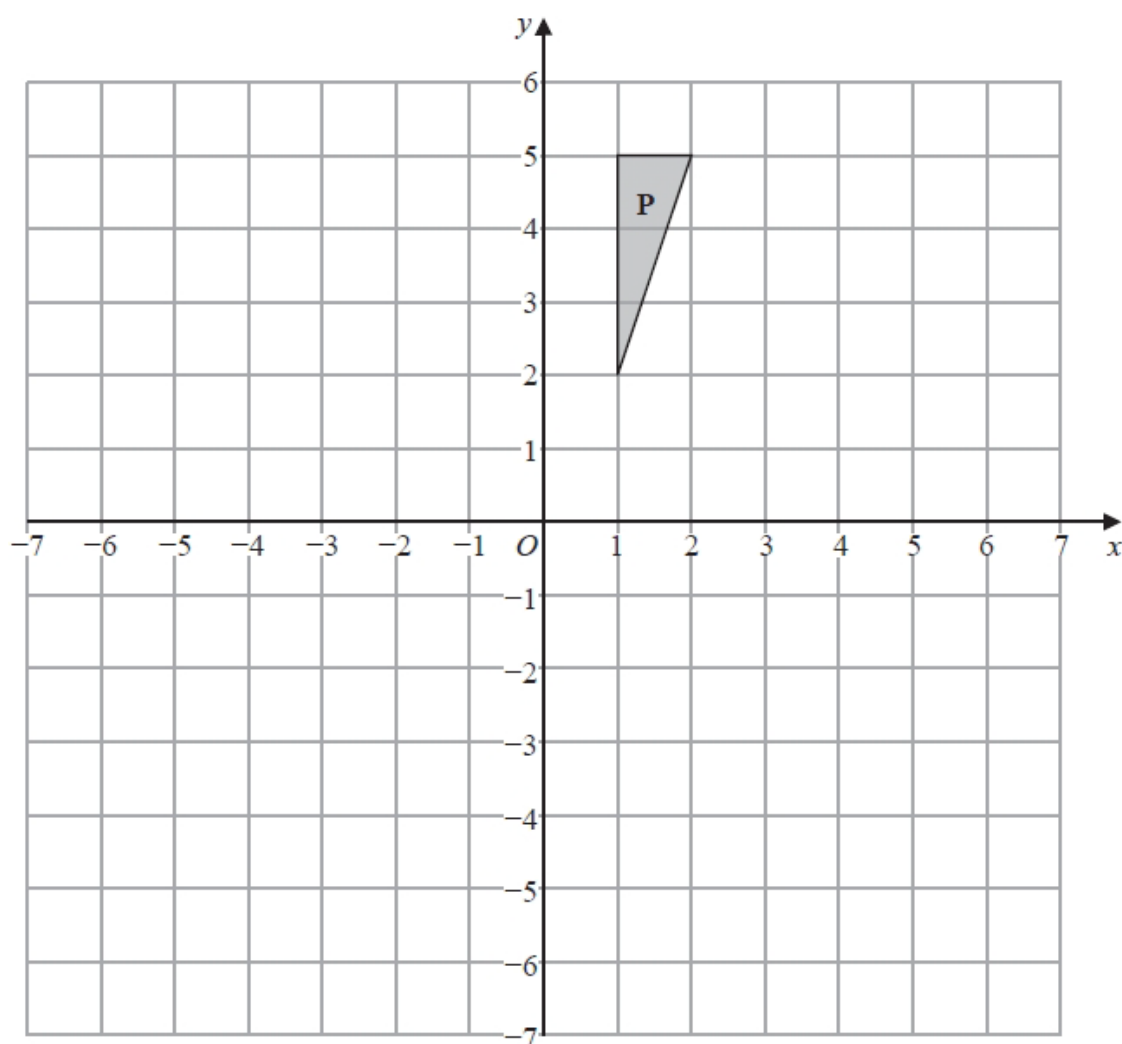
(a) Reflect shape **P** in the line $x = -1$



(b) Rotate shape **P** 90° anticlockwise about (0, 1).

Q10.

The diagram shows a triangle **P** on a grid.



Triangle **P** is rotated 180° about $(0, 0)$ to give triangle **Q**.

Triangle **Q** is translated by $\begin{pmatrix} 5 \\ -2 \end{pmatrix}$ to give triangle **R**.

(a) Describe fully the single transformation that maps triangle **P** onto triangle **R**.

(3)

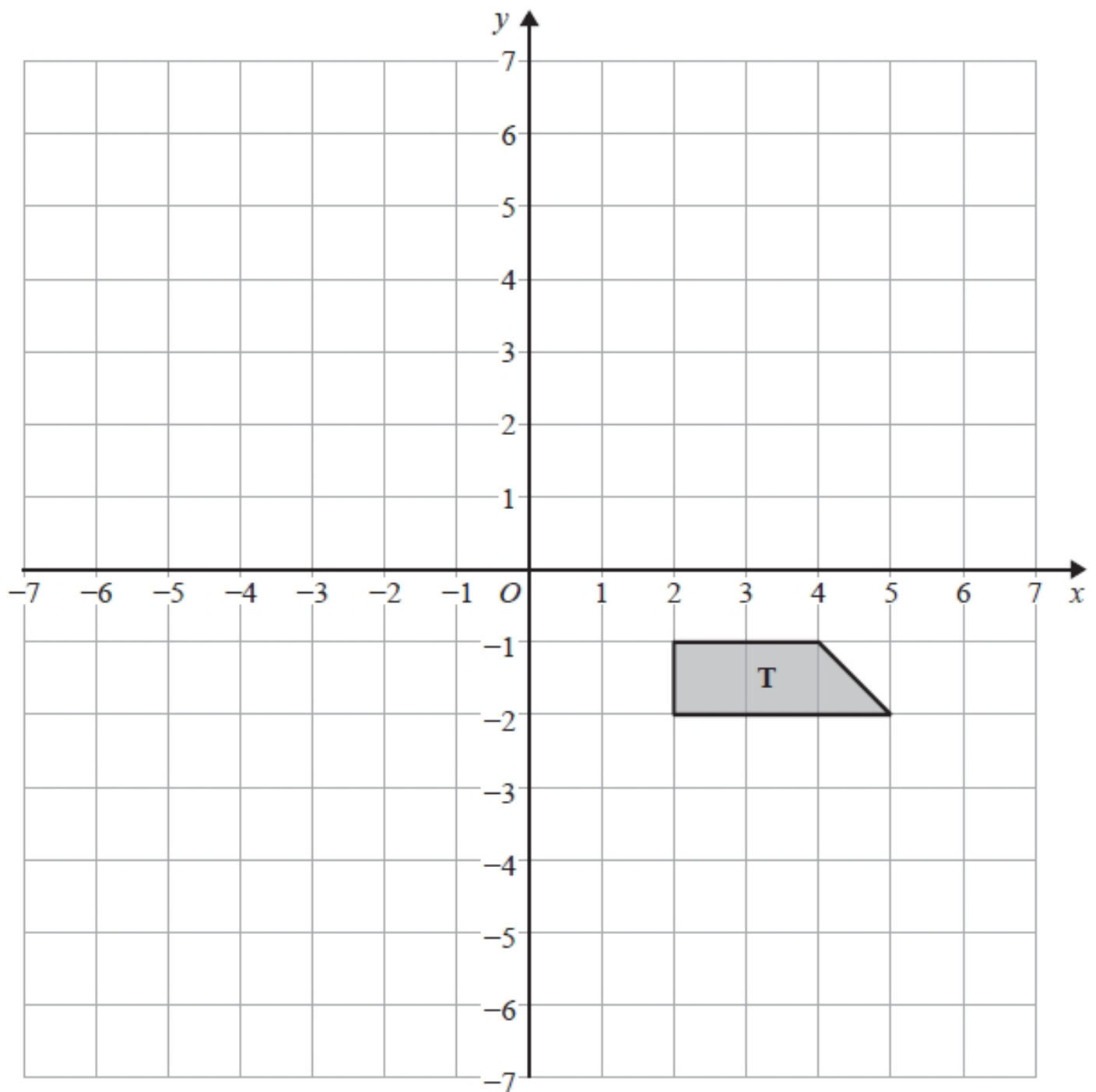
Under the transformation that maps triangle **P** onto triangle **R**, the point **A** is invariant.

(b) Write down the coordinates of point **A**.

(..... ,)

(Total for question = 4 marks)

Q11.



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

Label the new trapezium **A**.

(1)

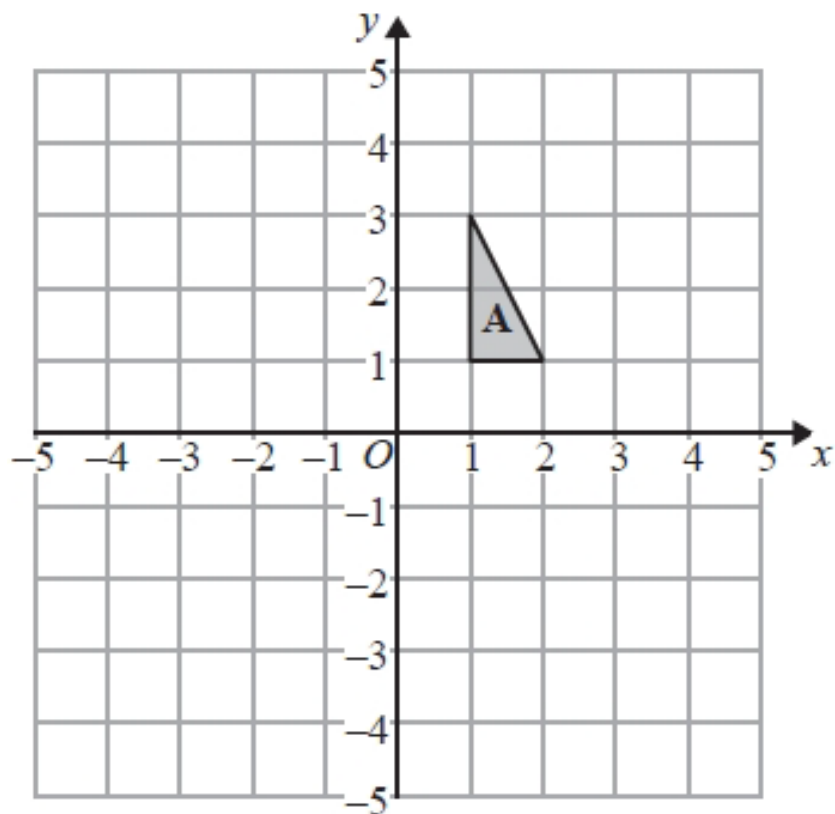
(b) Translate trapezium **T** by the vector $\begin{pmatrix} -1 \\ -3 \end{pmatrix}$

Label the new trapezium **B**.

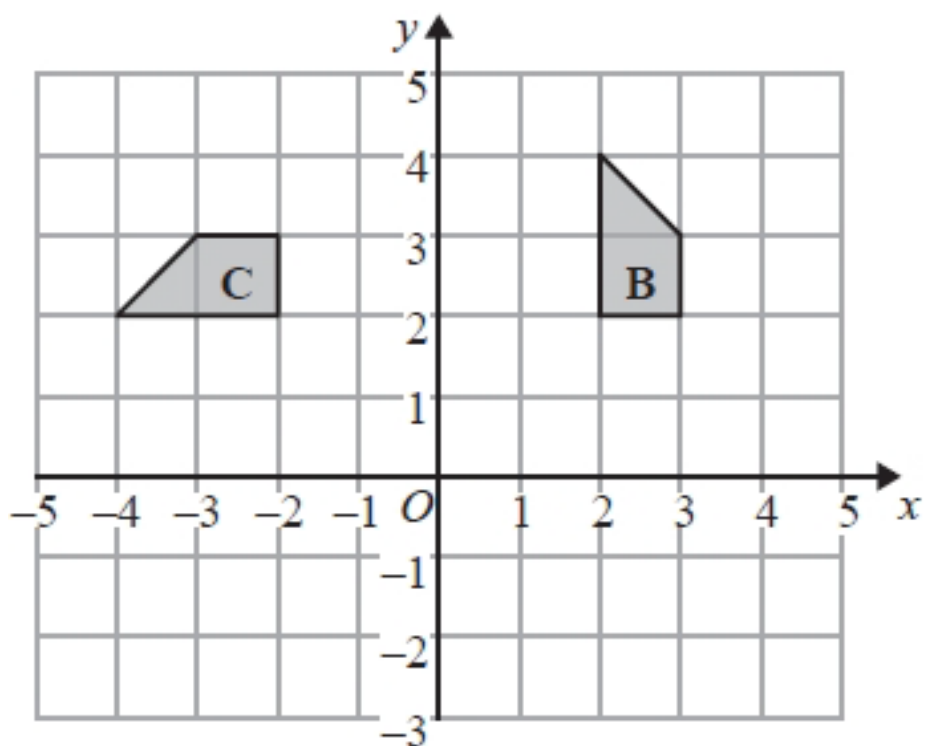
(1)

(Total for question = 2 marks)

Q12.



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



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

(Total for question = 5 marks)