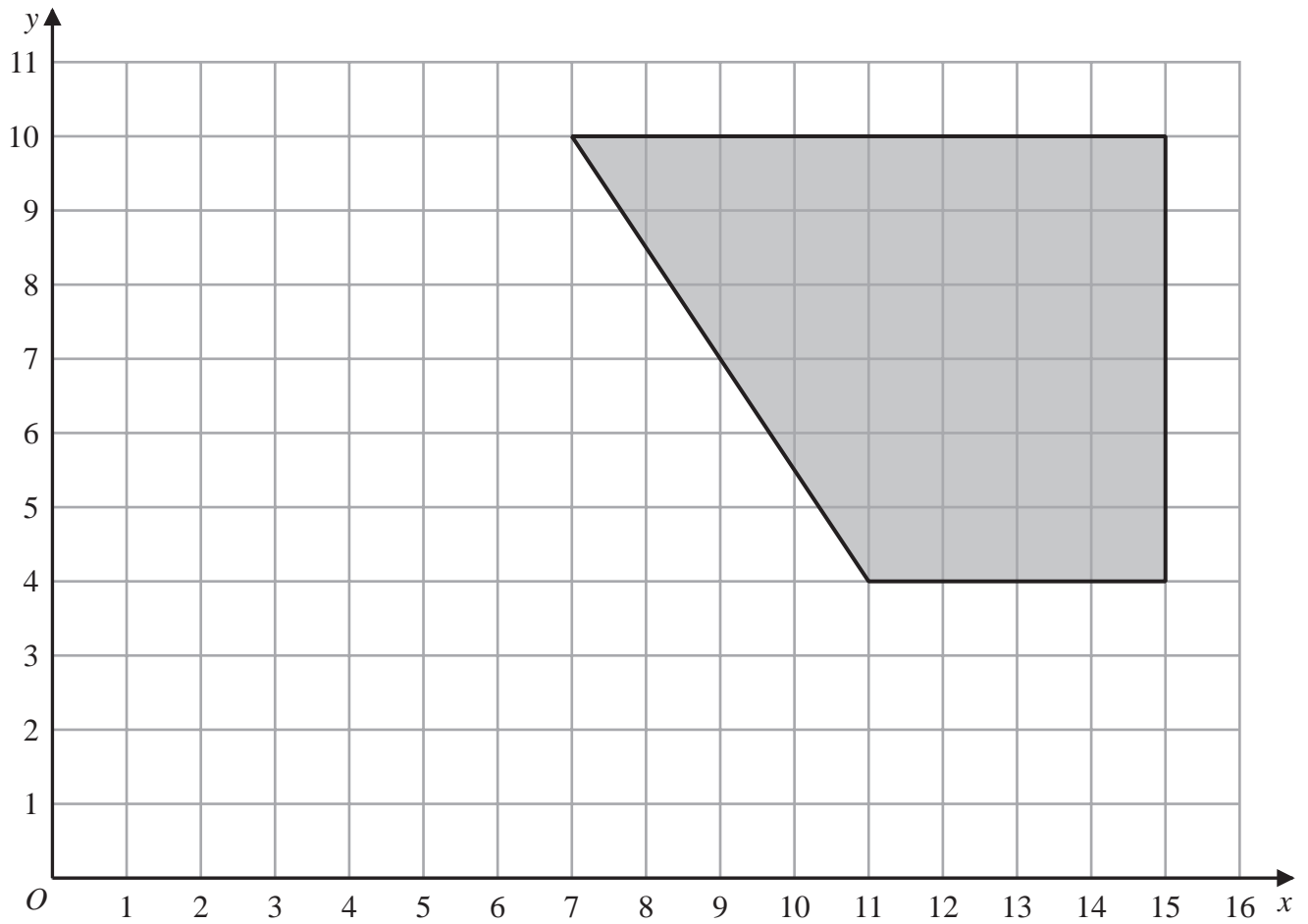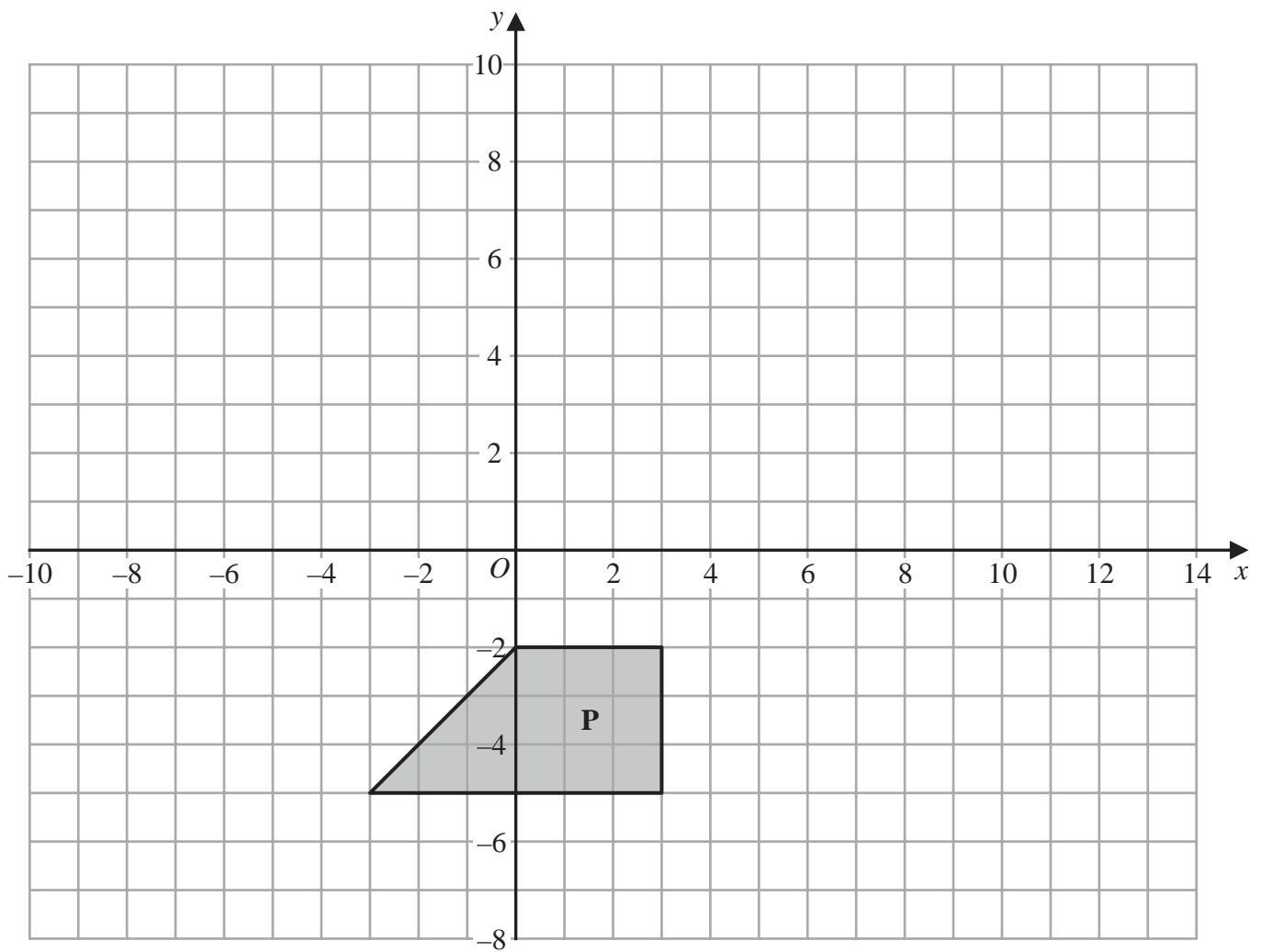**1**

On the grid, enlarge the shaded shape with scale factor $\frac{1}{2}$ and centre (1, 2)

(Total for Question 1 is 2 marks)

2   Here is a shape **P** drawn on a grid of squares.
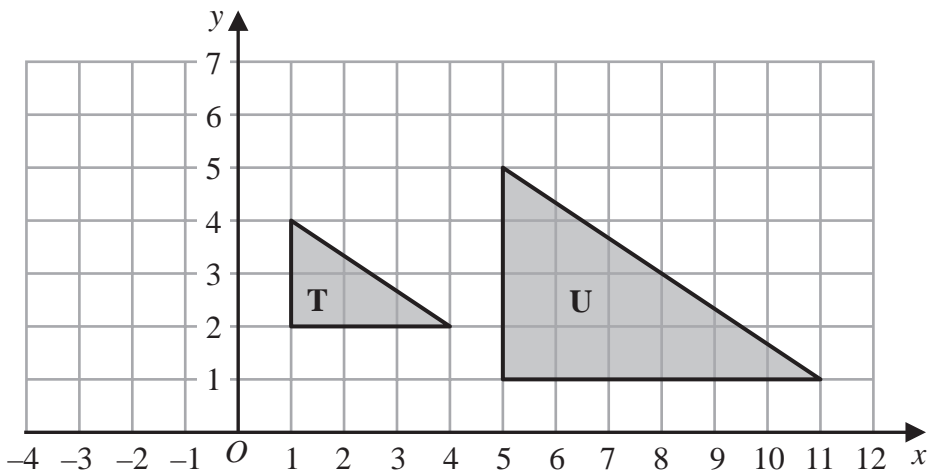

(a) On the grid, rotate shape **P** 180° about the point (–3, 2)
Label the new shape **Q**.

(2)

(b) On the grid, translate shape **P** by the vector $\begin{pmatrix} 10 \\ 8 \end{pmatrix}$

Label the new shape **R**.

(1)

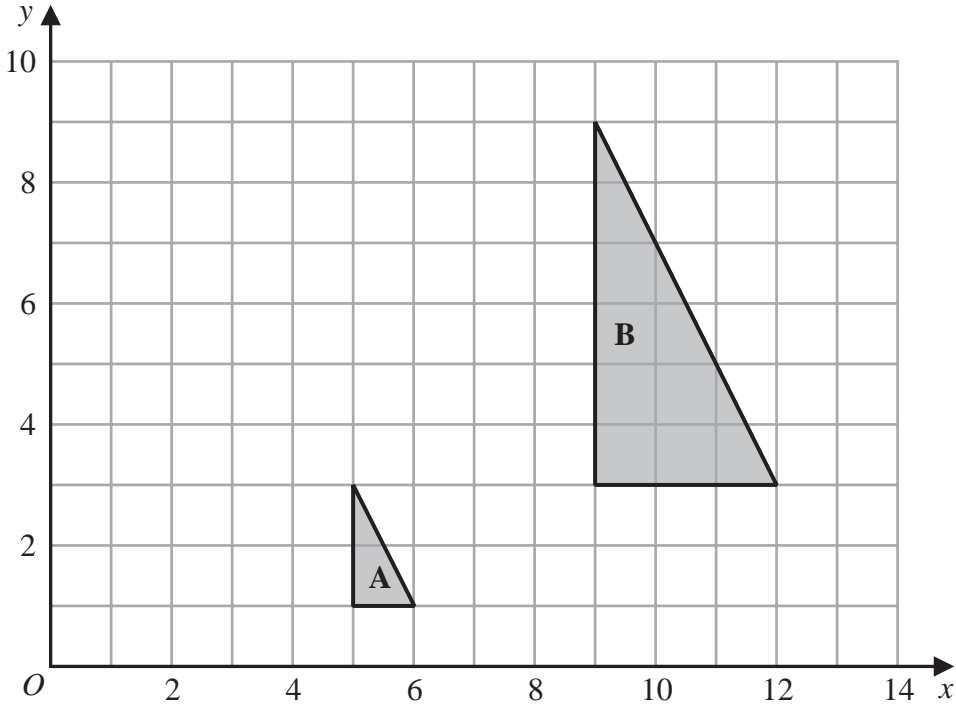Here are triangle **T** and triangle **U** drawn on a grid of squares.

(c) Describe fully the single transformation that maps triangle **T** onto triangle **U**.

....

....

(3)

(Total for Question 2 is 6 marks)

3

(a) Describe fully the single transformation that maps triangle **A** onto triangle **B**

....

....

(3)

(Total for Question 3 is 3 marks)

4
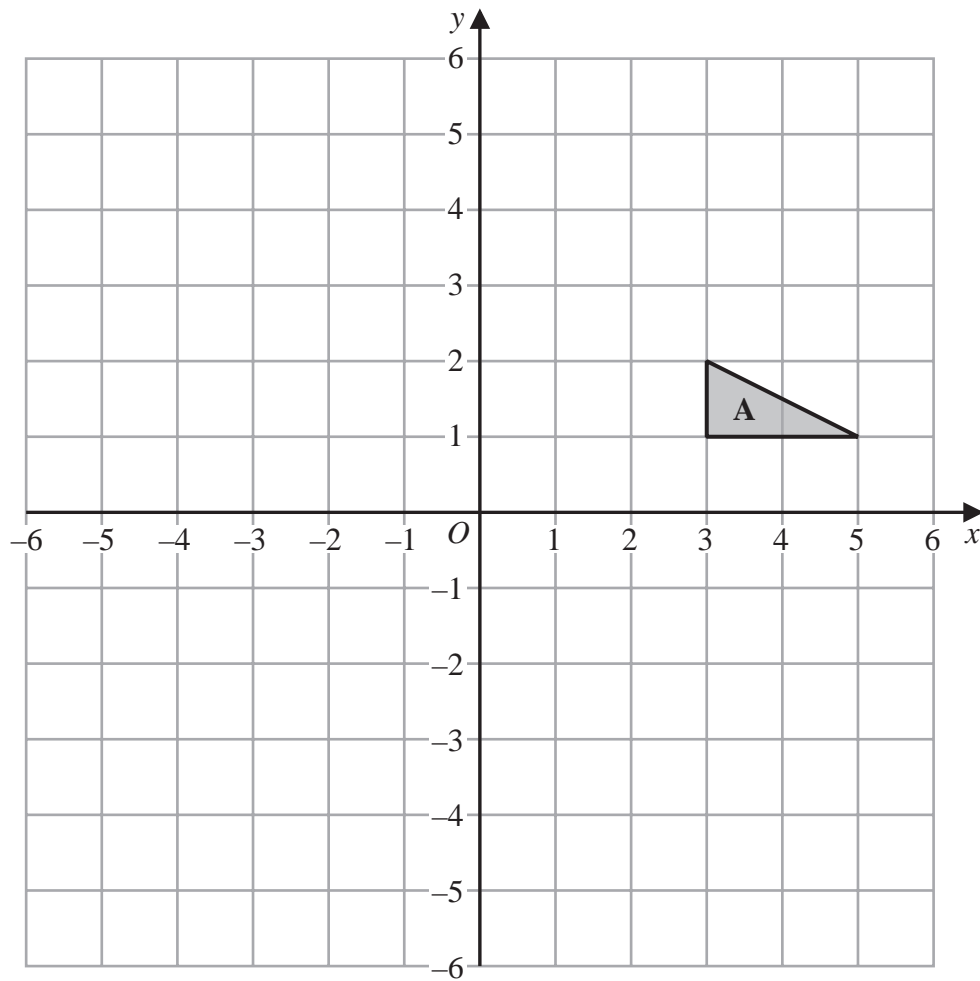
(a) On the grid, rotate triangle **A** 180° about (1, –1)
Label the new triangle **B**

(2)

(b) On the grid, translate triangle **A** by the vector $\begin{pmatrix} -7 \\ 3 \end{pmatrix}$

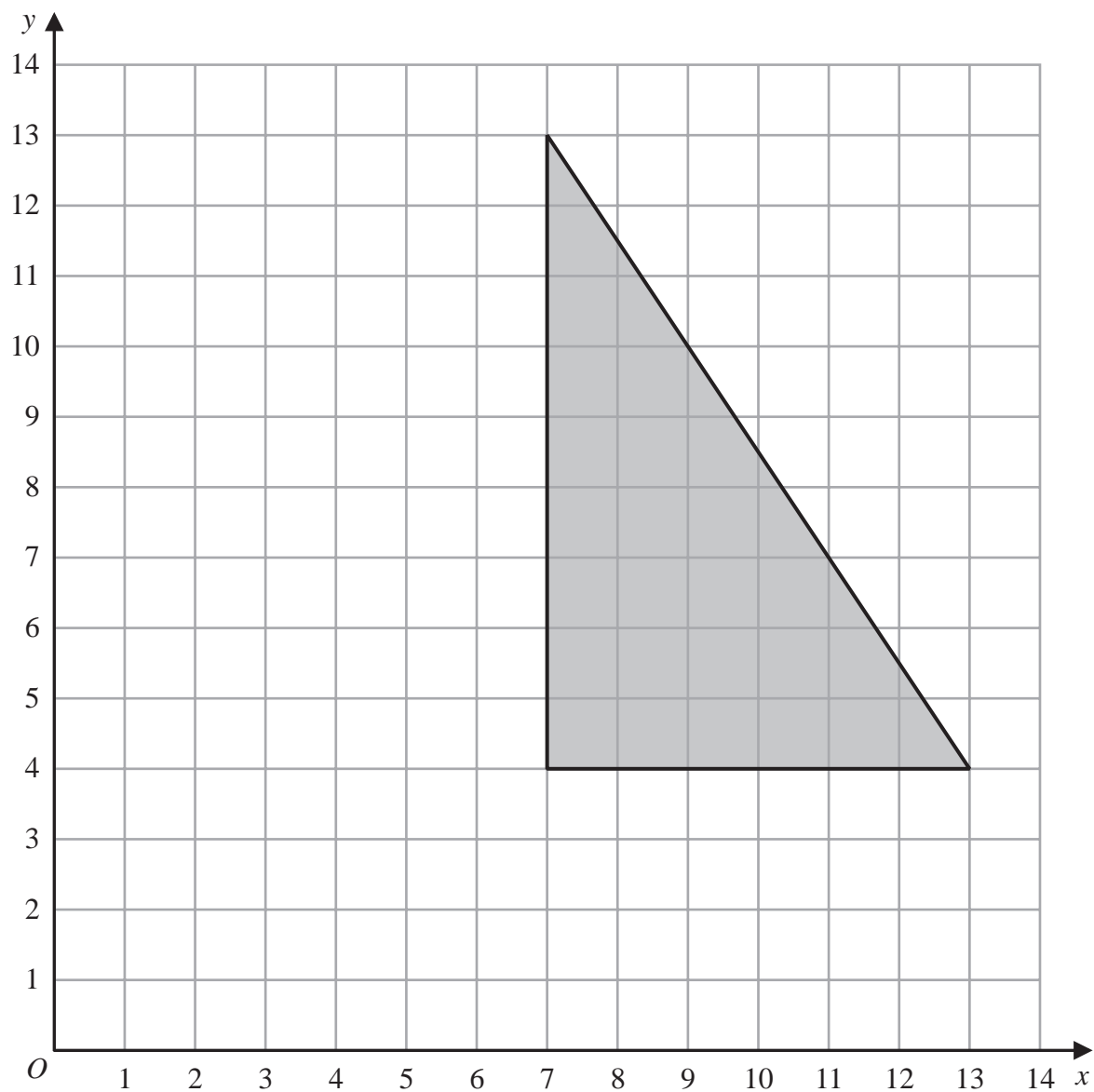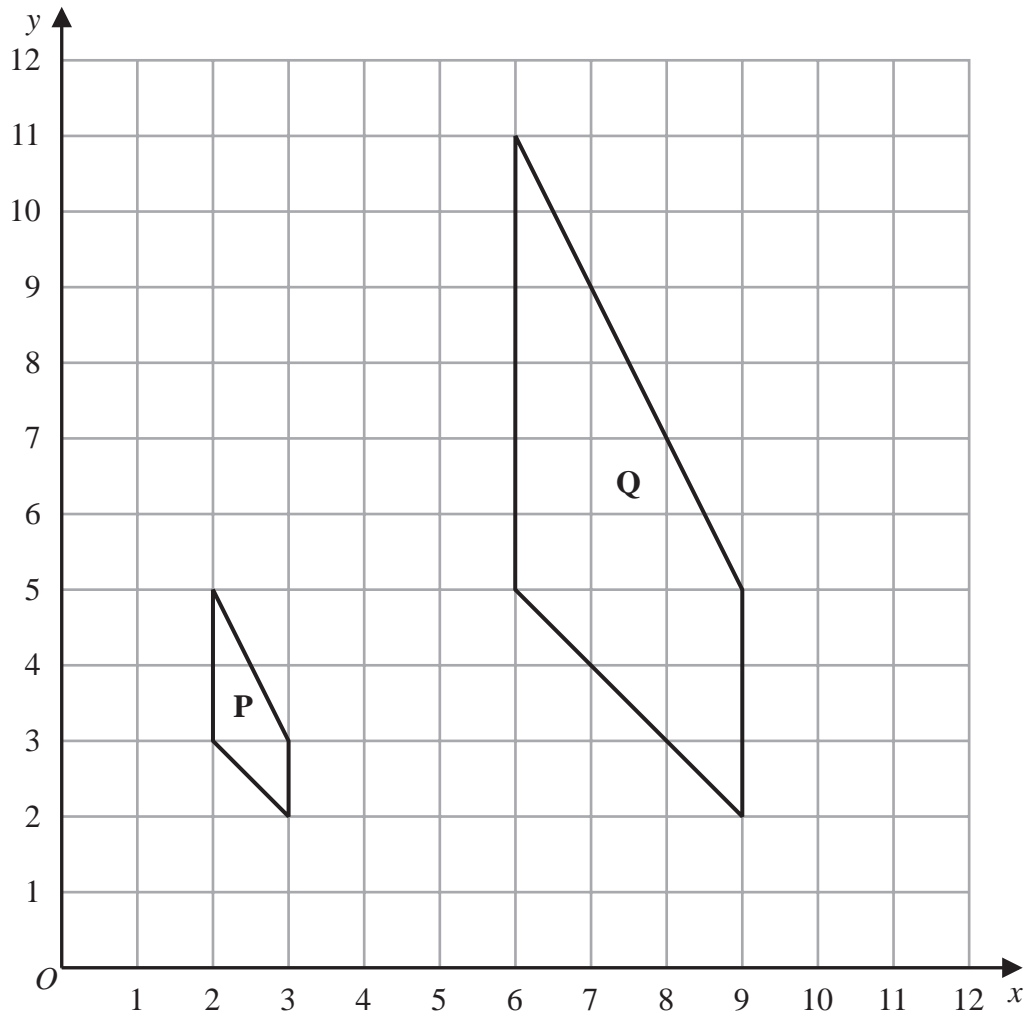Label the new triangle **C**

(1)

(Total for Question 4 is 3 marks)

5

On the grid, enlarge the shaded shape with scale factor $\dfrac{1}{3}$ and centre (1, 7)

(Total for Question 5 is 2 marks)

6 The diagram shows shape **P** and shape **Q** drawn on a grid.

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

....

....

(3)

(Total for Question 6 is 3 marks)