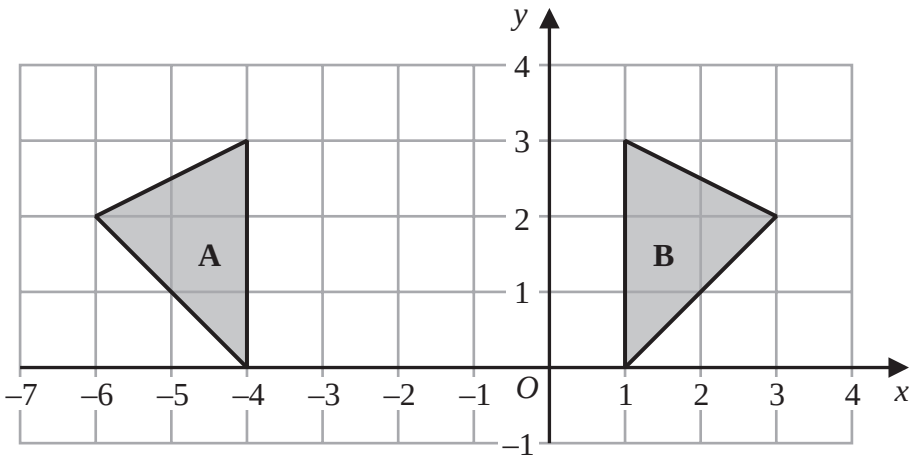
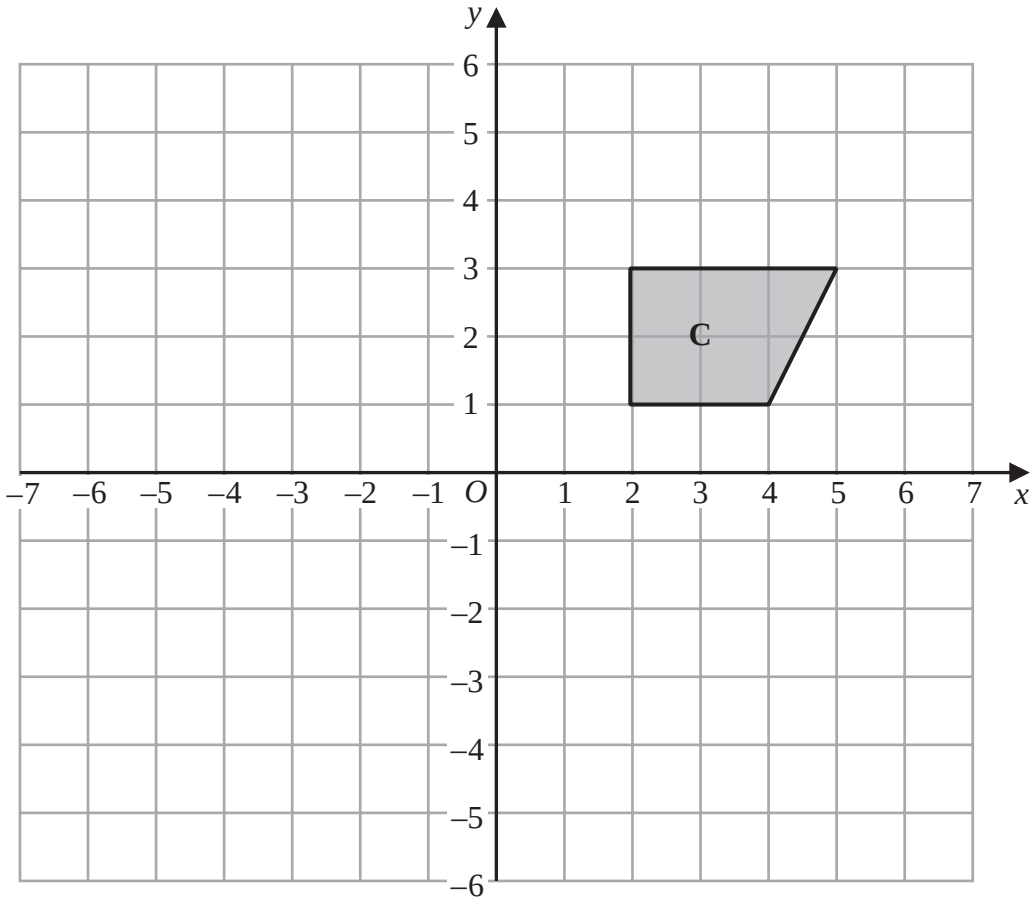
1



On the grid above, triangle **A** is the reflection of triangle **B** in the mirror line M.

(a) On the grid, draw the mirror line M.
Label the line M.

(1)

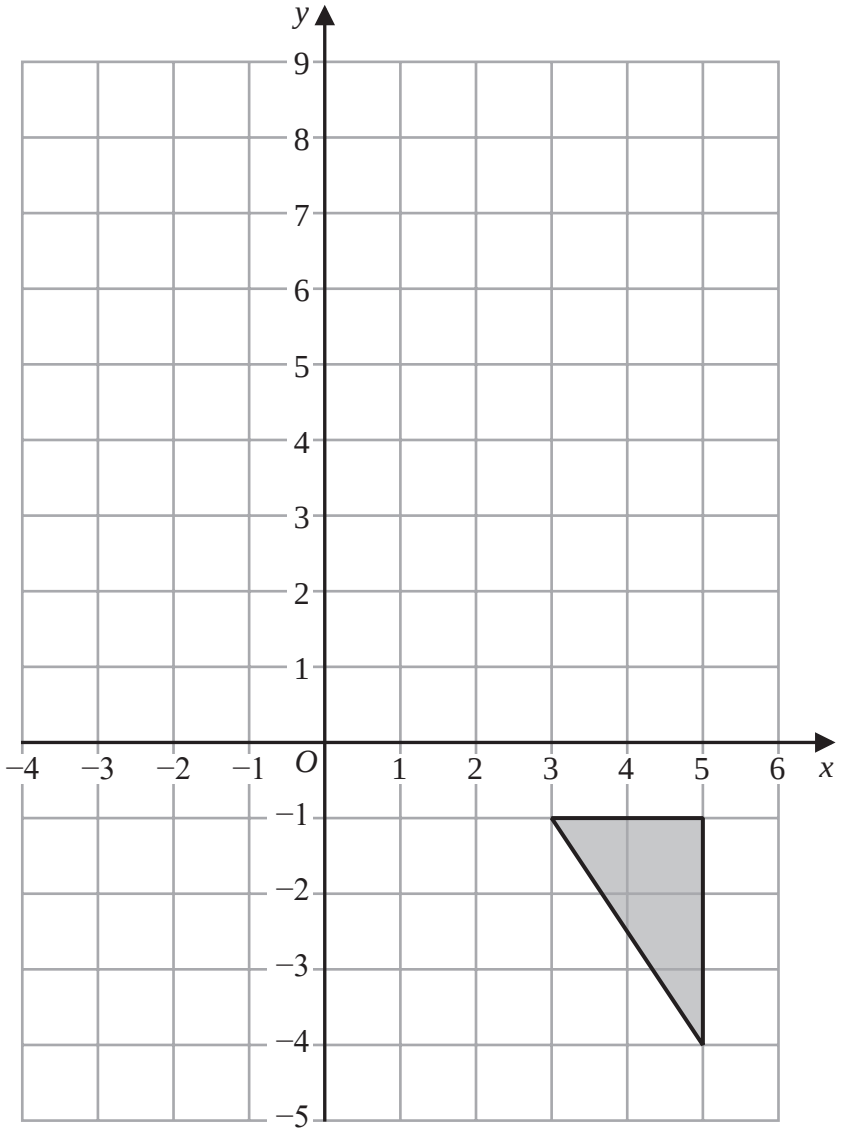


(b) On the grid above, rotate the shaded shape **C** 90° anticlockwise about the point with coordinates (0, 0)

(2)

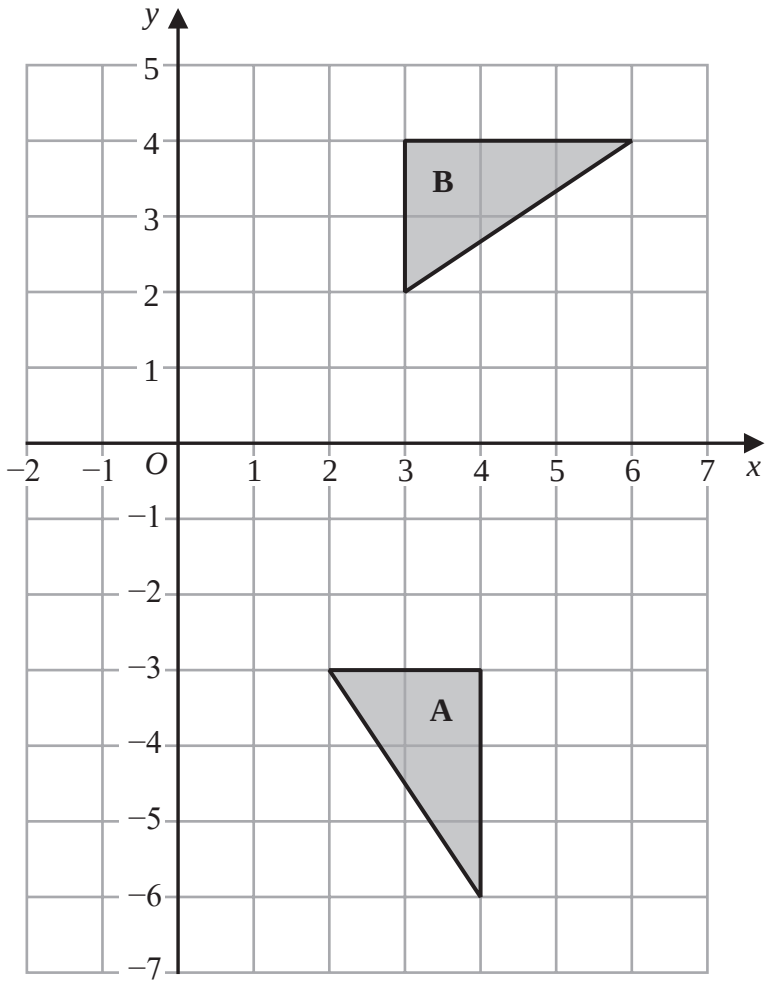
(Total for Question 1 is 3 marks)

2



(a) On the grid, reflect the shaded triangle in the line with equation $y = 2$

(2)



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

(3)

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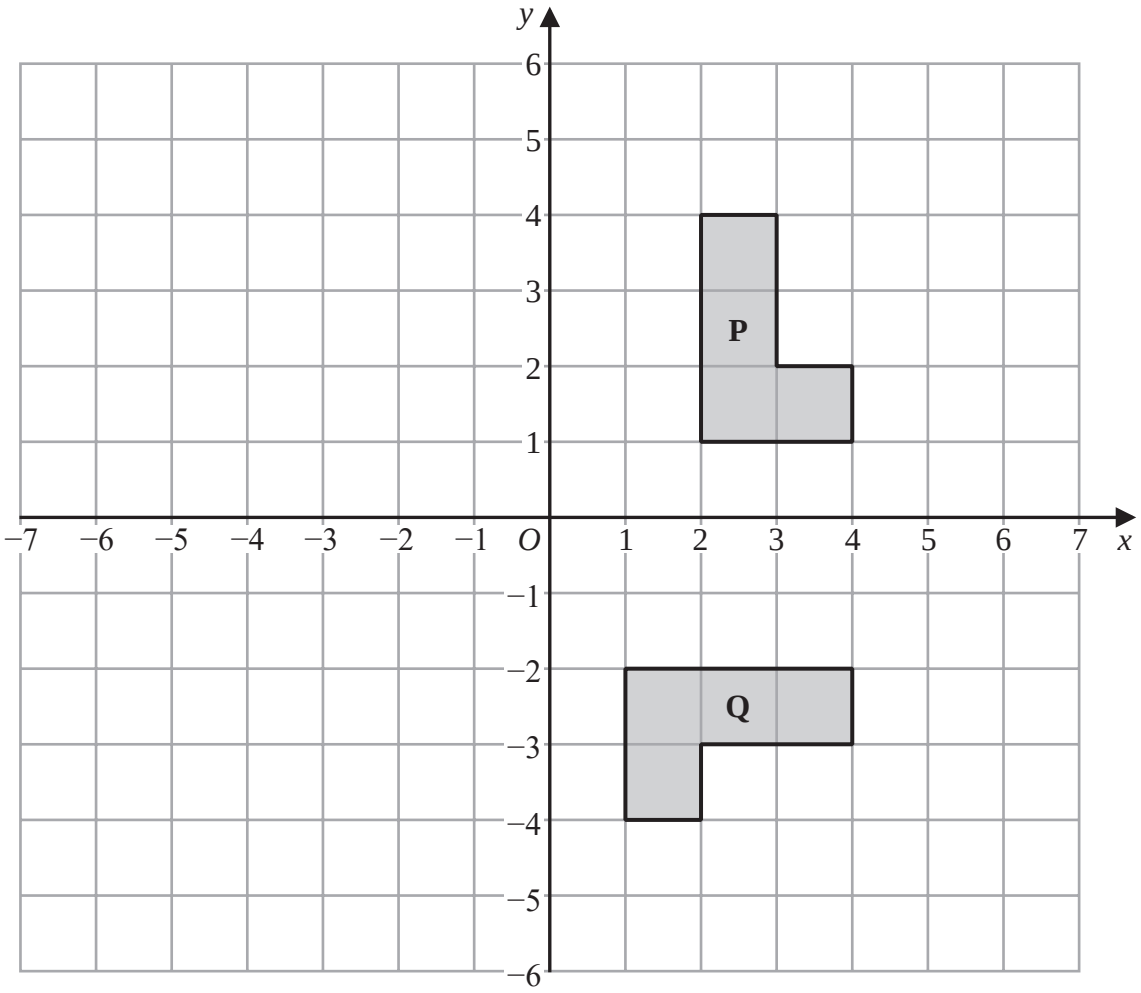
.....

.....

(Total for Question 2 is 5 marks)

3



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

.....

.....

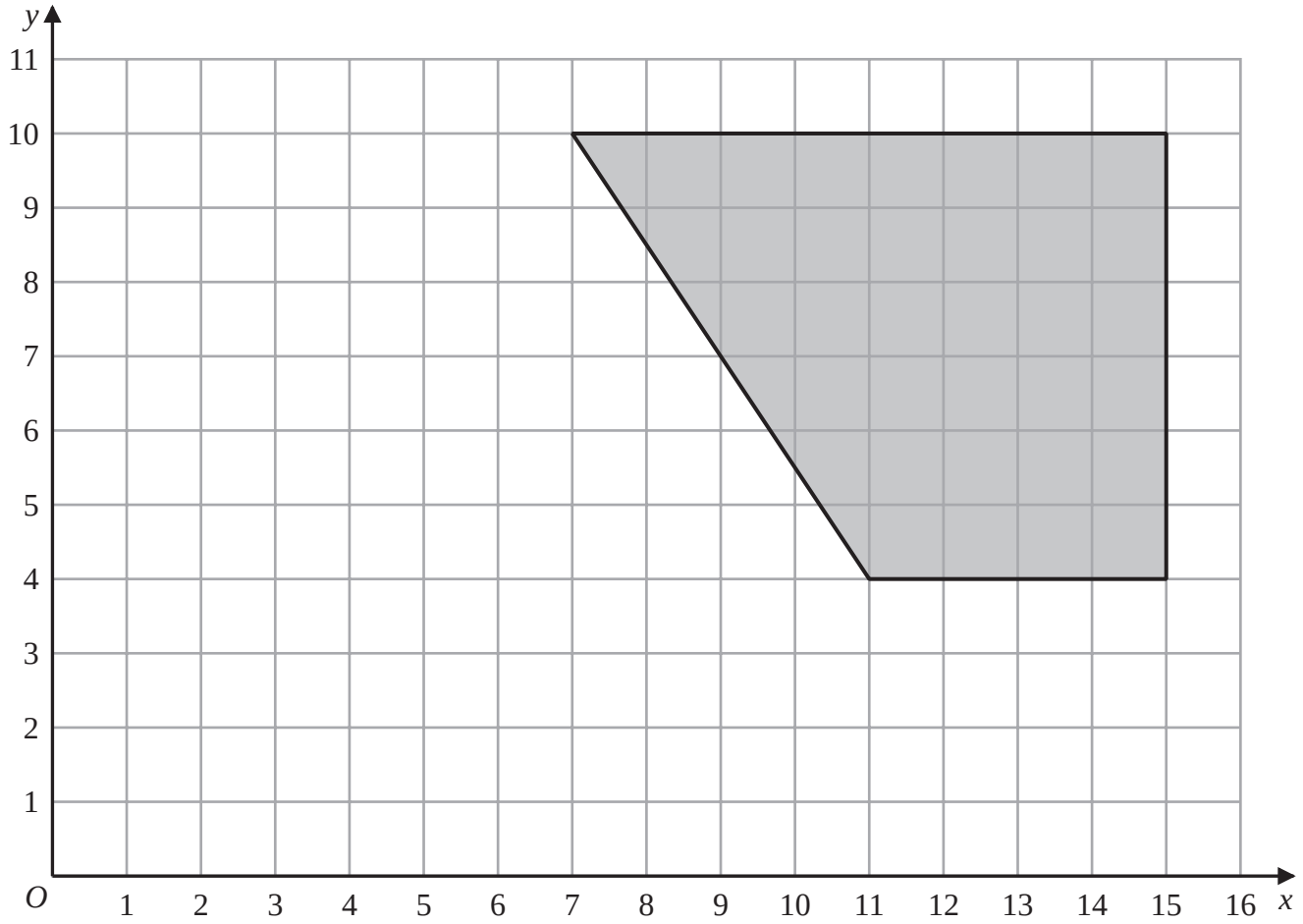
(3)

(b) On the grid, reflect shape **P** in the line $x = -1$
Label the new shape **R**.

(2)

(Total for Question 3 is 5 marks)

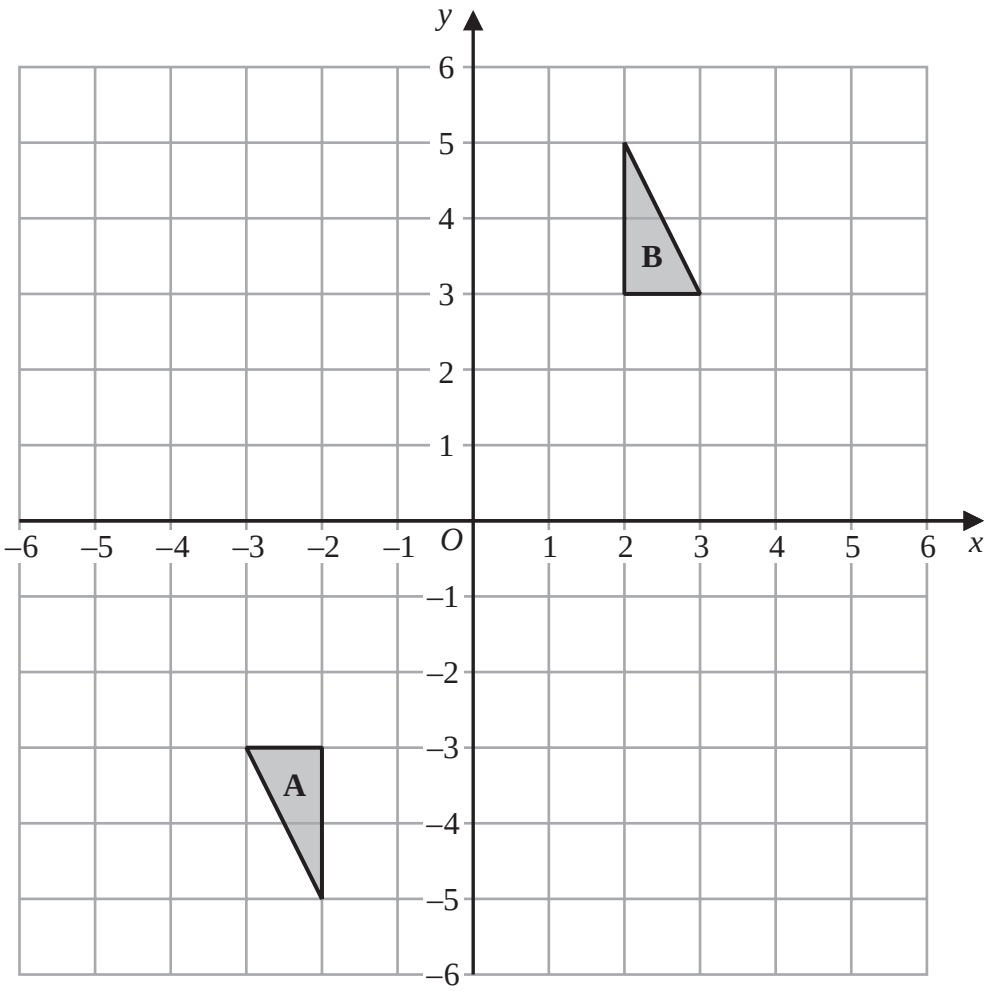
4



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

(Total for Question 4 is 2 marks)

5



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

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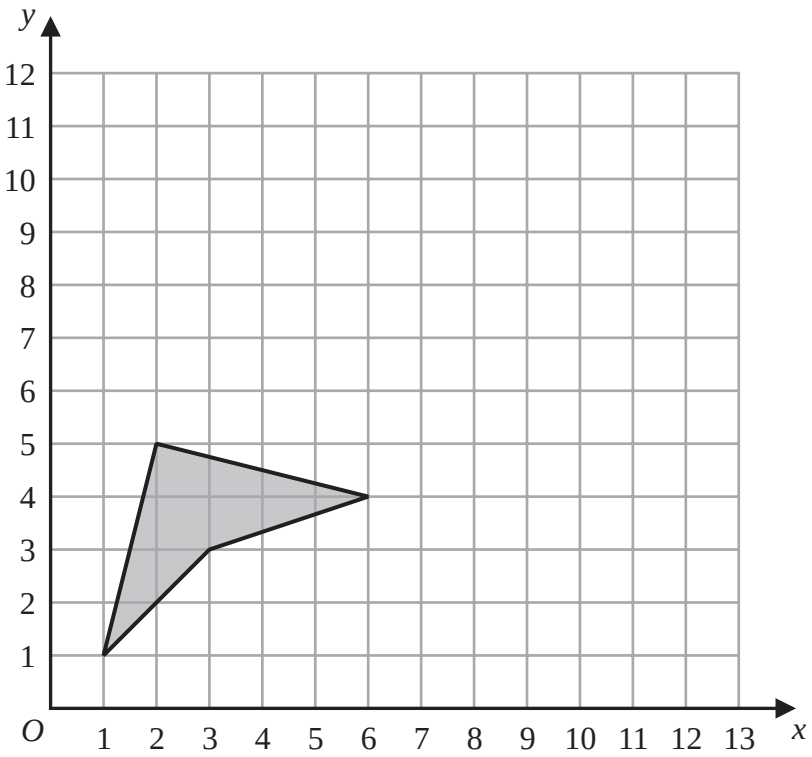
.....

(Total for Question 5 is 2 marks)

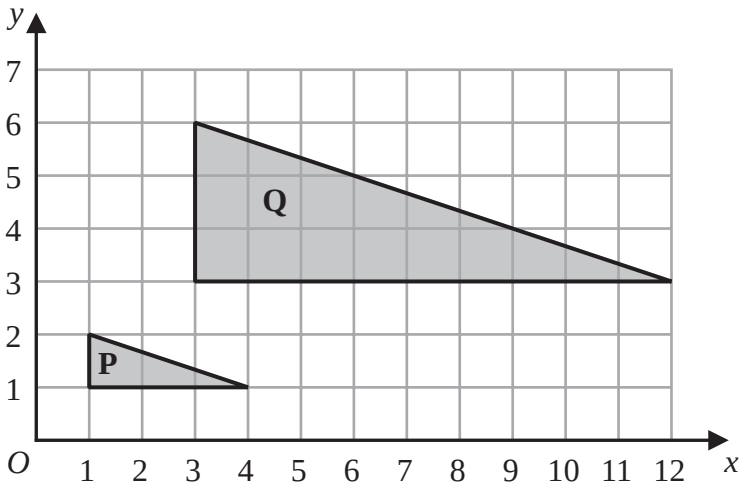
6 The diagram shows a shaded shape on a grid.



(a) On the grid, reflect the shape in the line with equation $x = 6$

(2)

The diagram below shows triangle **P** and triangle **Q** drawn on a grid.



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

(3)

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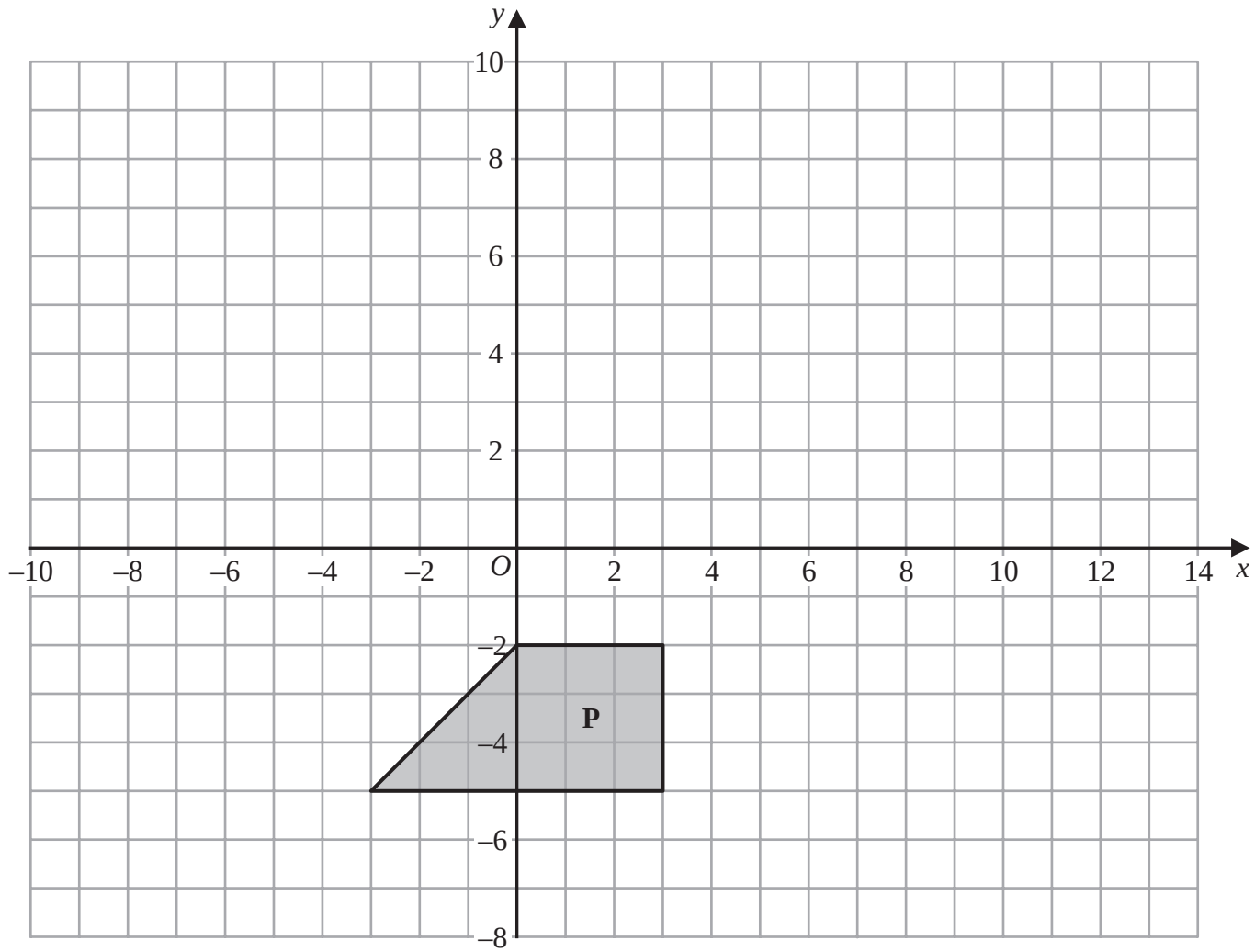
.....

(Total for Question 6 is 5 marks)

7 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**.

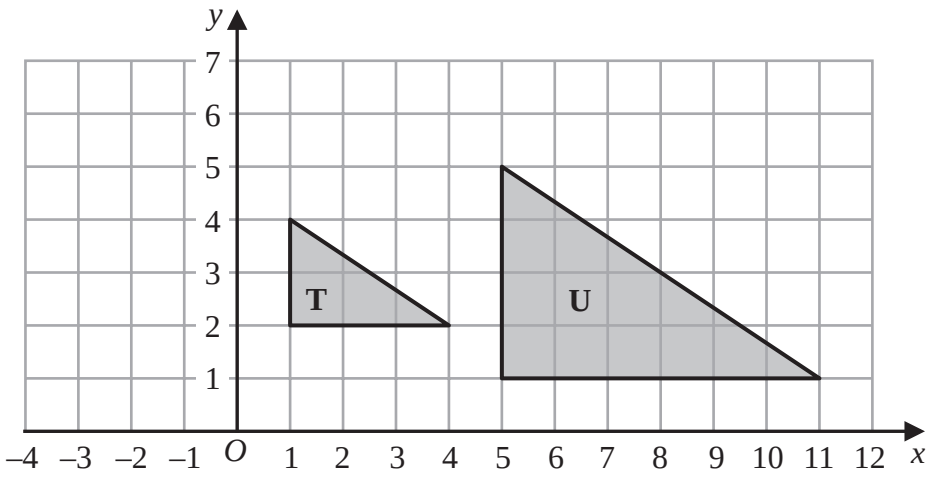
(2)

(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**.

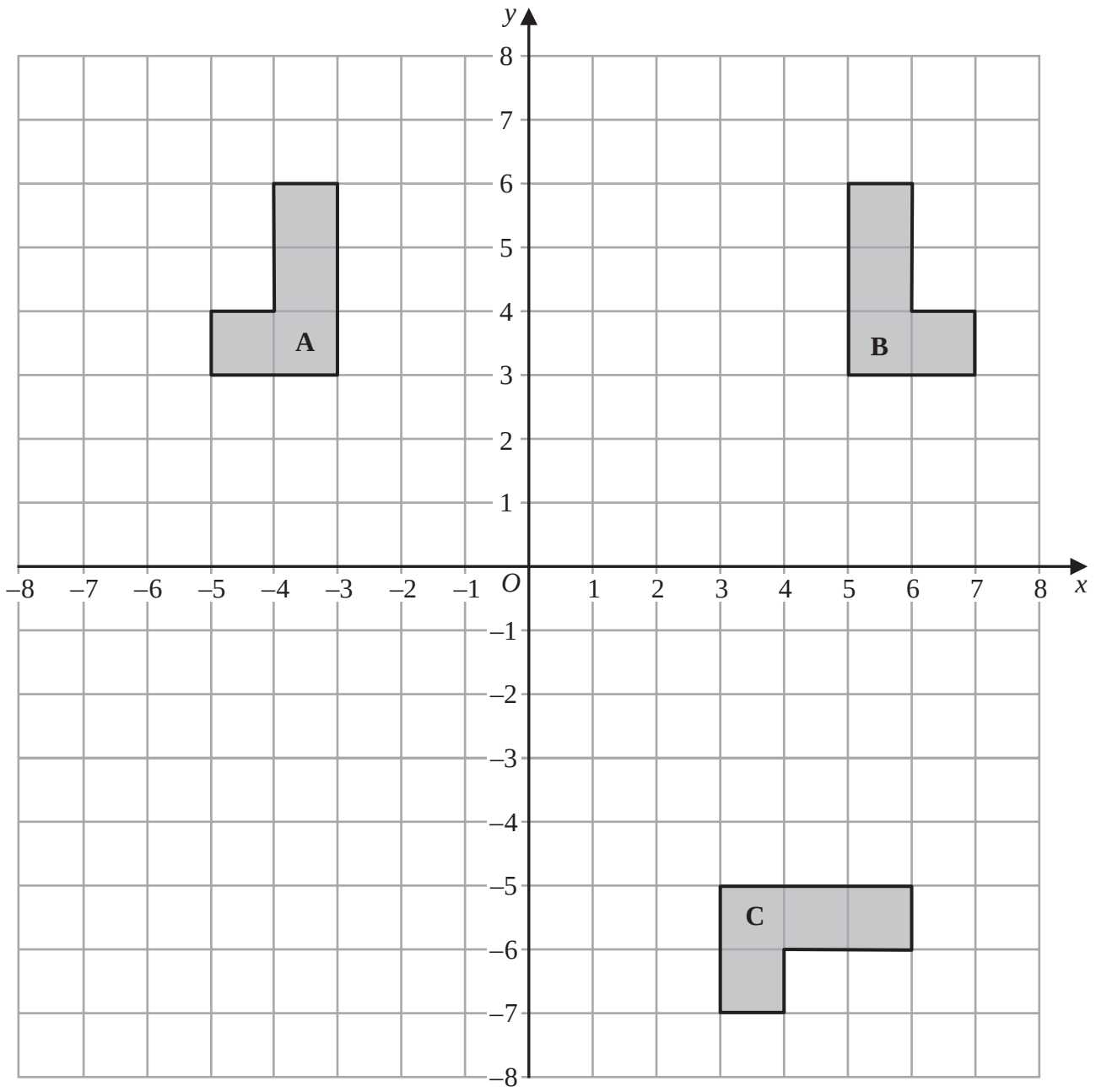
.....

.....

(3)

(Total for Question 7 is 6 marks)

8



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

.....

.....

(2)

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

.....

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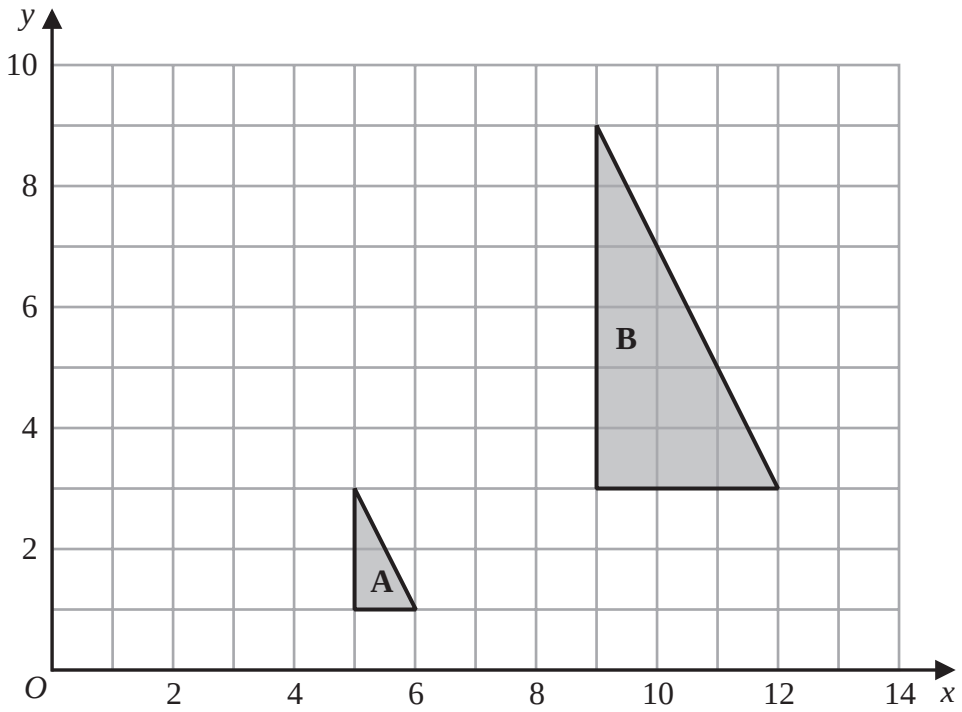
(3)

(Total for Question 8 is 5 marks)

9



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

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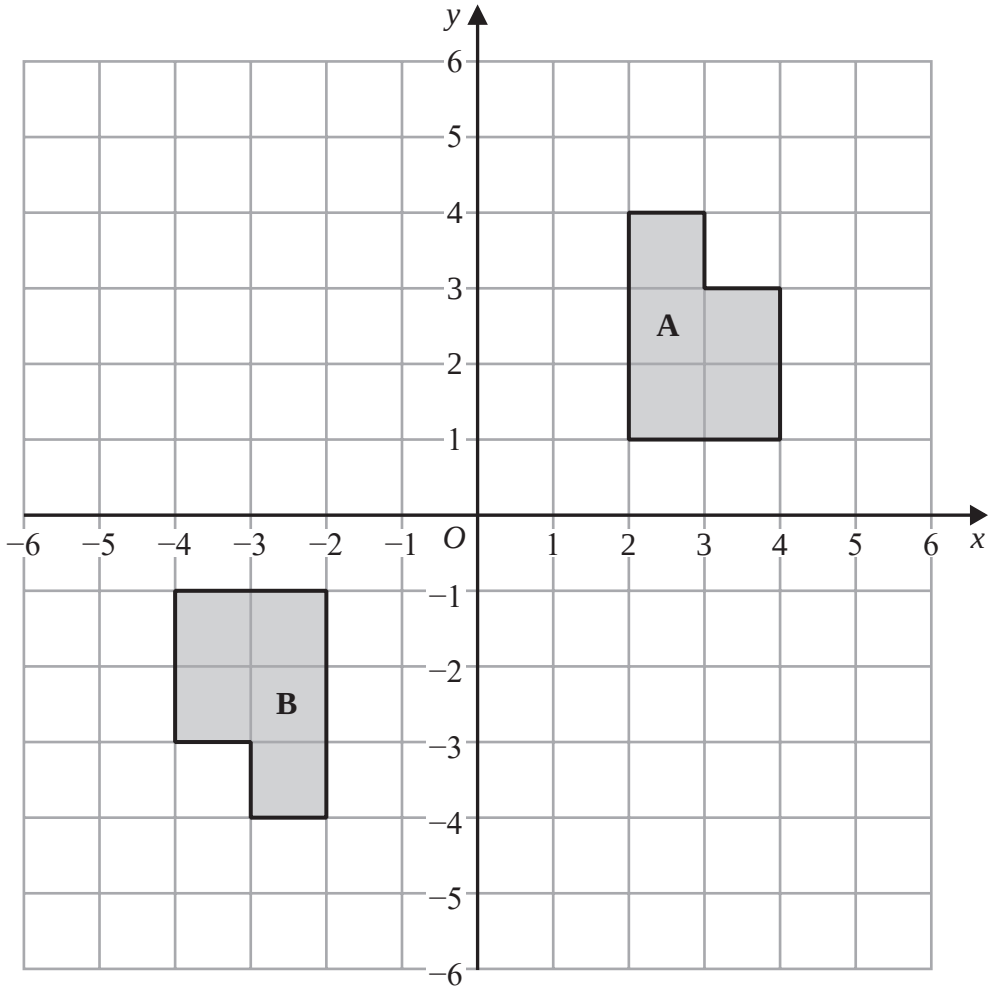
.....

(3)

(Total for Question 9 is 3 marks)

10



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

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.....

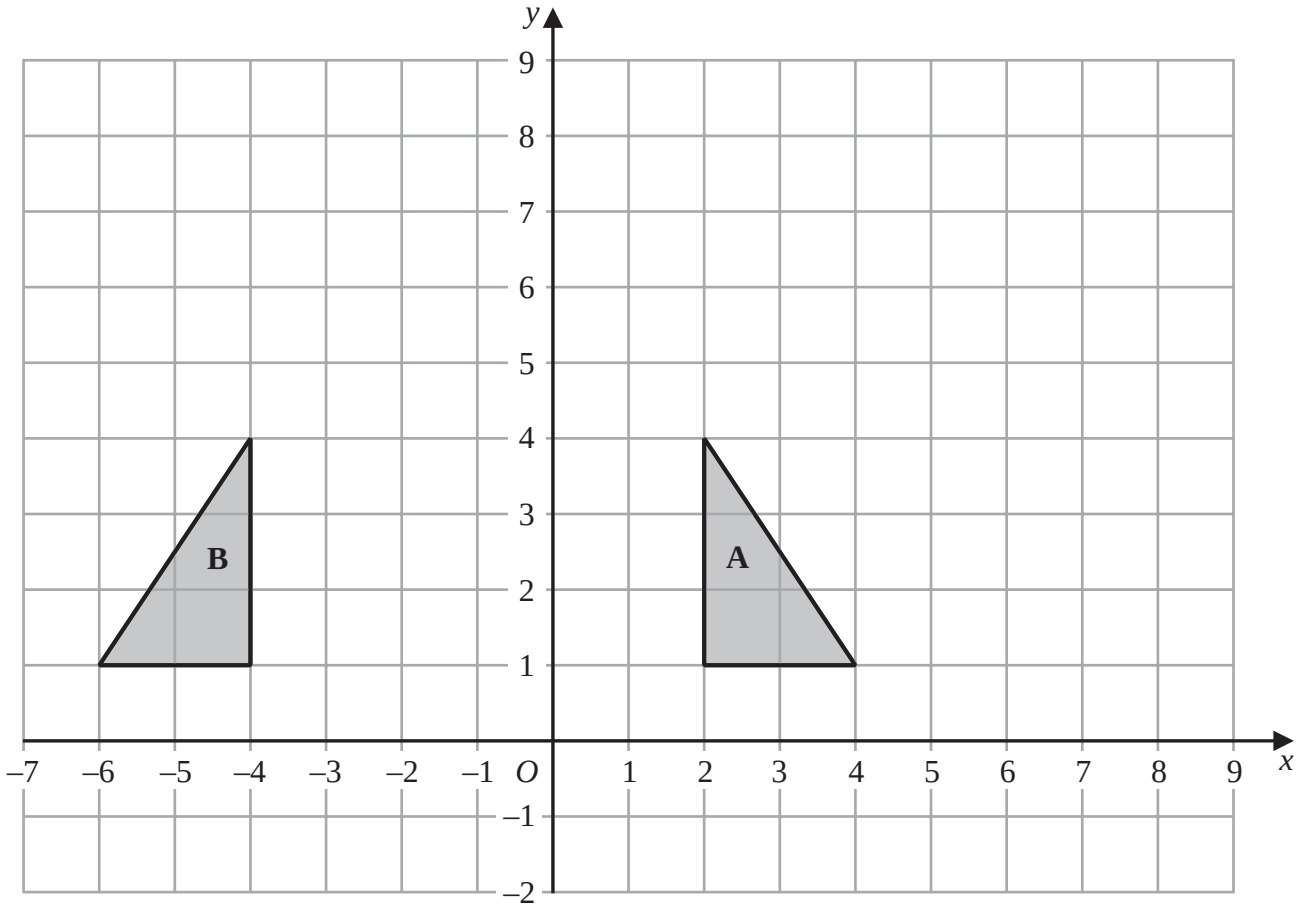
(2)

(b) On the grid, reflect shape **A** in the line with equation $x = -1$

(2)

(Total for Question 10 is 4 marks)

11



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

.....

.....

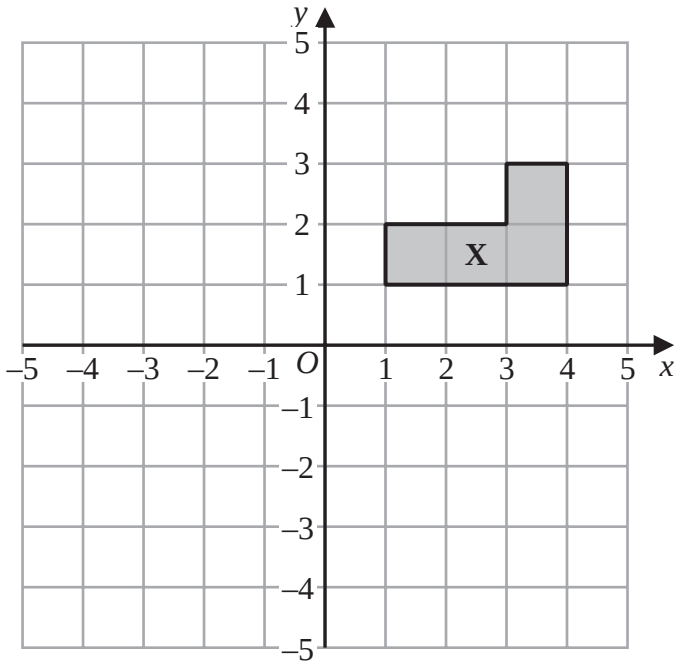
(2)

(b) On the grid above, enlarge triangle **A** with scale factor 2 and centre *O*
Label your triangle **C**

(2)

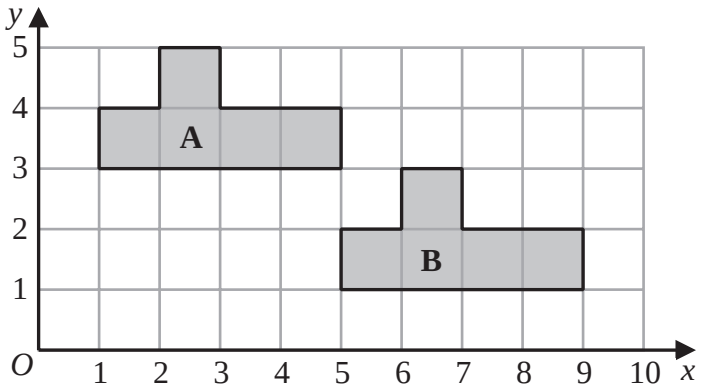
(Total for Question 11 is 4 marks)

12



(a) On the grid above, rotate shape **X** 90° clockwise about *O*

(2)



(b) Describe fully the single transformation that maps shape **A** onto shape **B**

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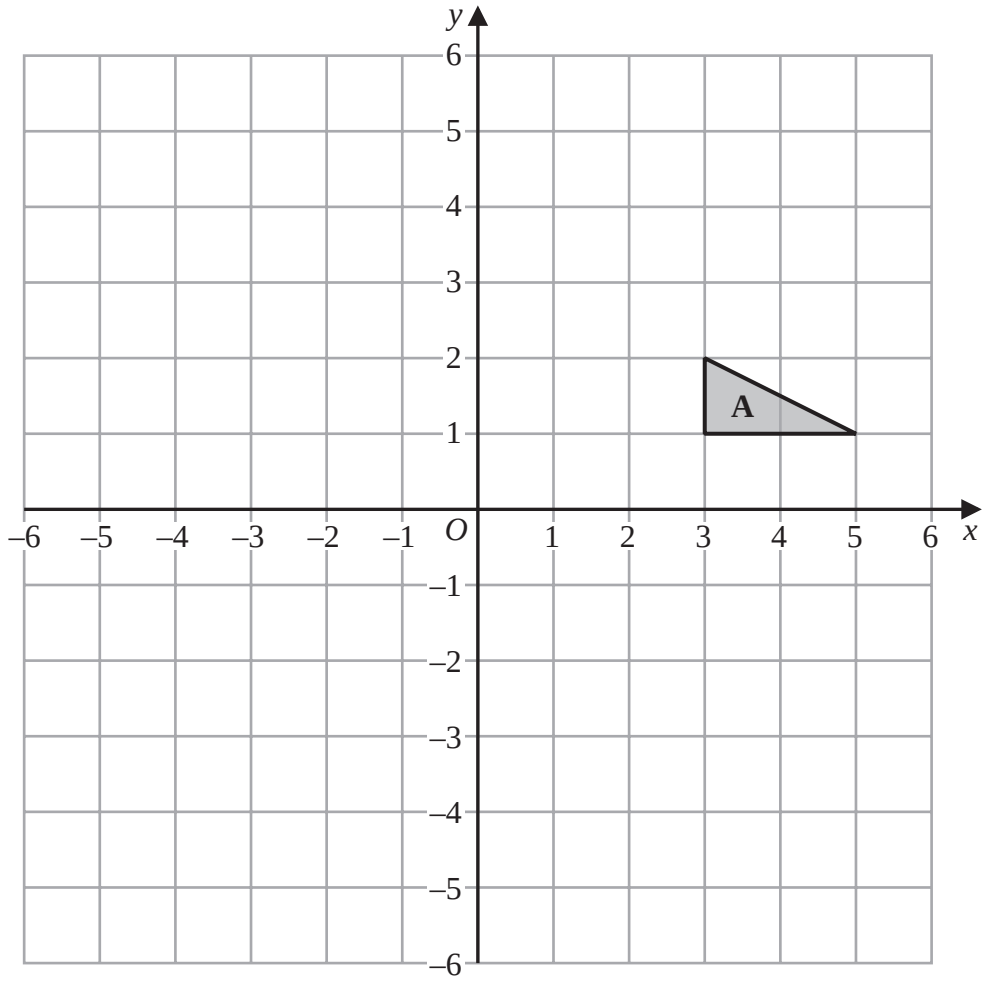
(2)

(Total for Question 12 is 4 marks)

13



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

(2)

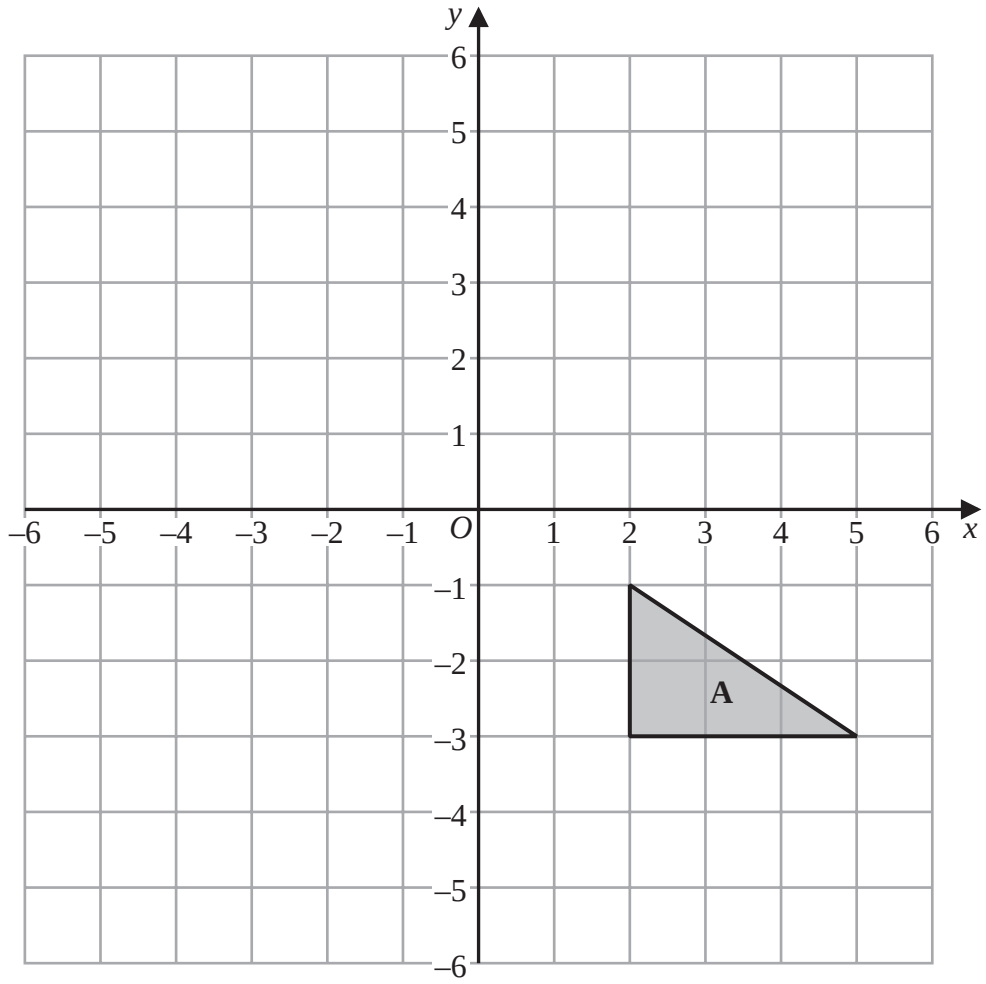
(b) On the grid, translate triangle **A** by the vector $\begin{pmatrix} -7 \\ 3 \end{pmatrix}$

Label the new triangle **C**

(1)

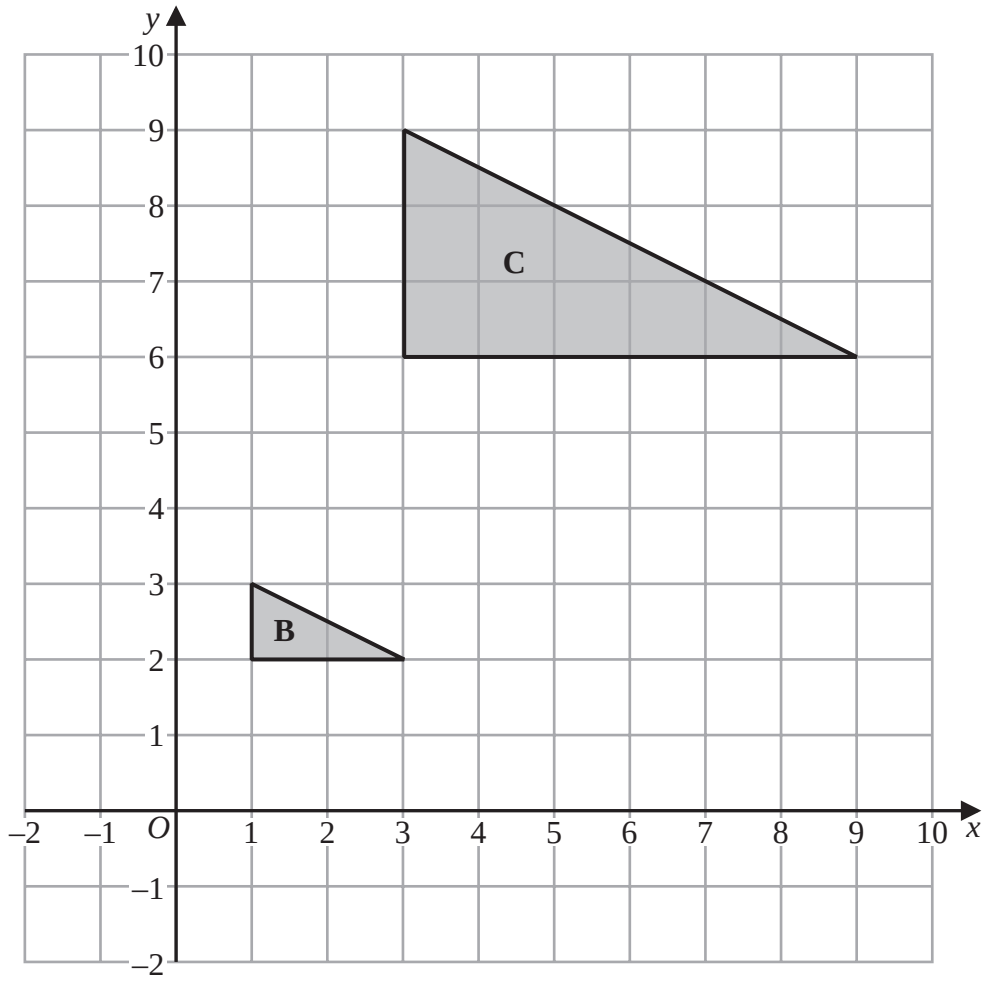
(Total for Question 13 is 3 marks)

14



(a) On the grid, rotate triangle **A** 90° anticlockwise about centre *O*

(2)



(b) Describe fully the single transformation that maps triangle **B** onto triangle **C**

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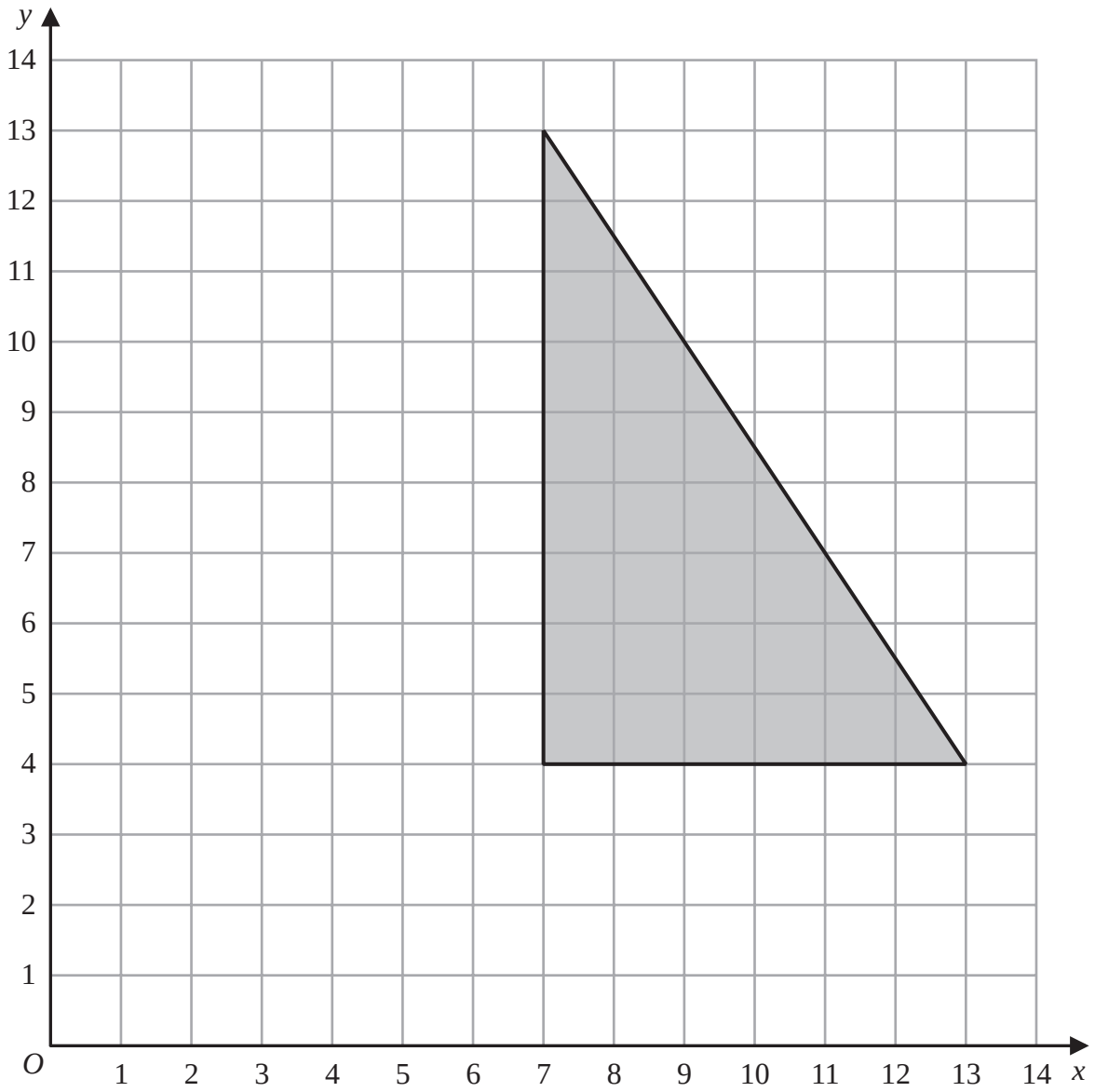
(2)

(Total for Question 14 is 4 marks)

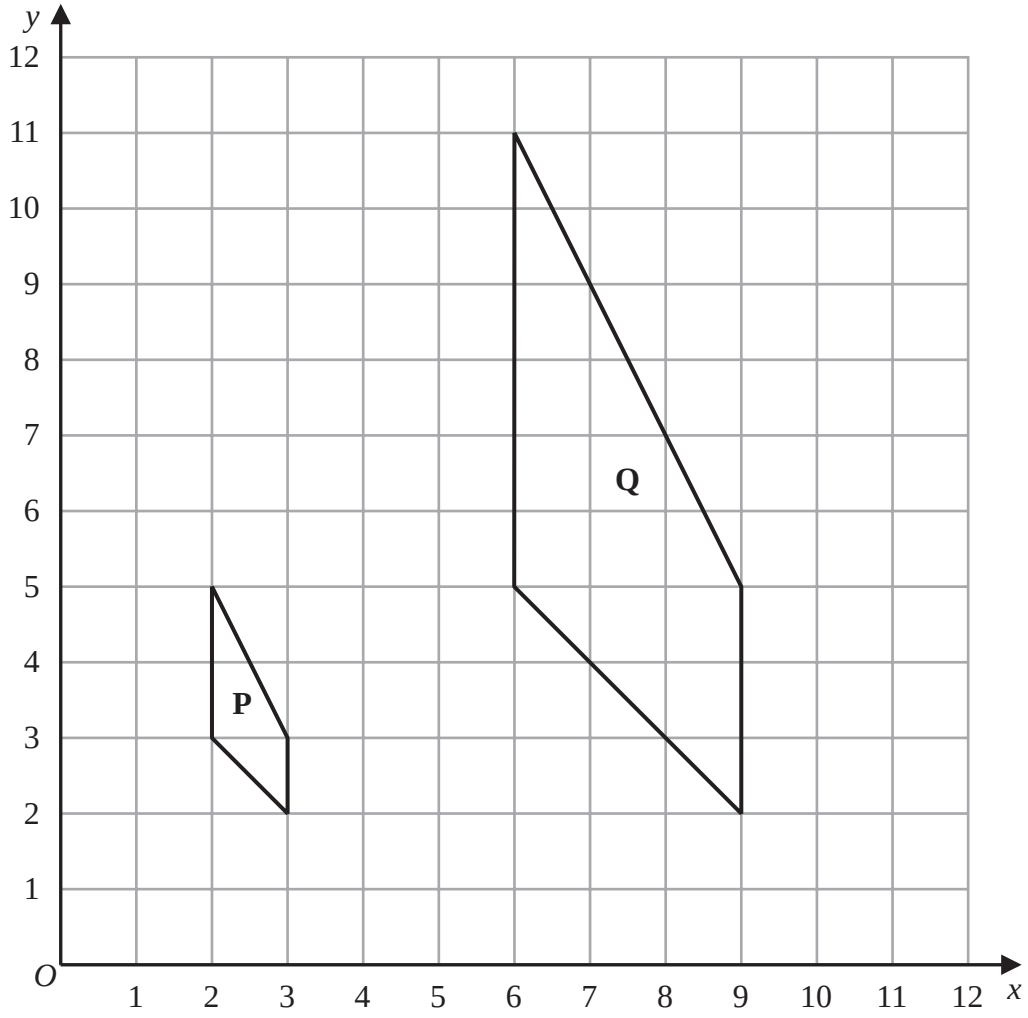
15



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

(Total for Question 15 is 2 marks)

16 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**

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(3)

(Total for Question 16 is 3 marks)