



EXAM PAPERS PRACTICE

GCSE OCR Math J560

Transformations

Answers

*"We will help you to
achieve A Star "*

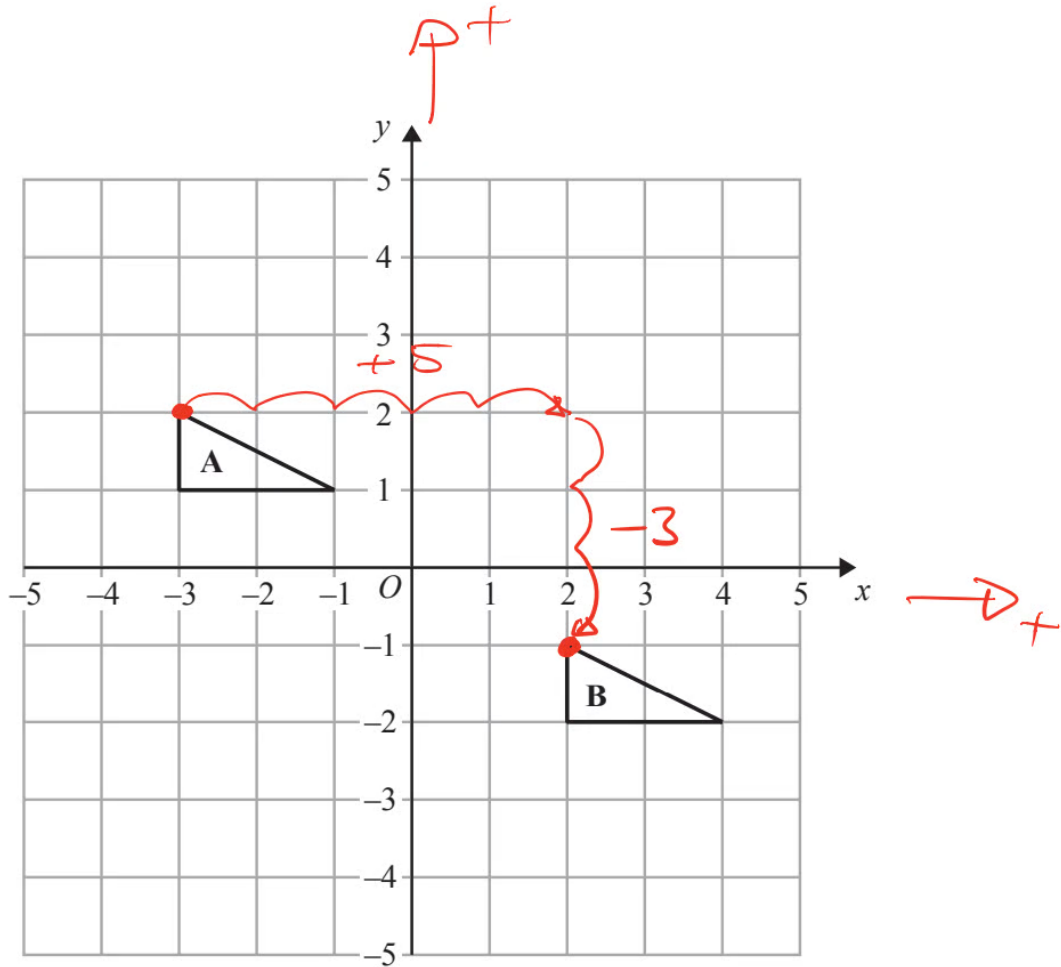


Answer 1

Move
(b) Translate trapezium **T** by the vector $\begin{pmatrix} -1 \\ -3 \end{pmatrix}$ → 1 to LEFT
Label the new trapezium **B**. → 3 DOWN



Answer 2

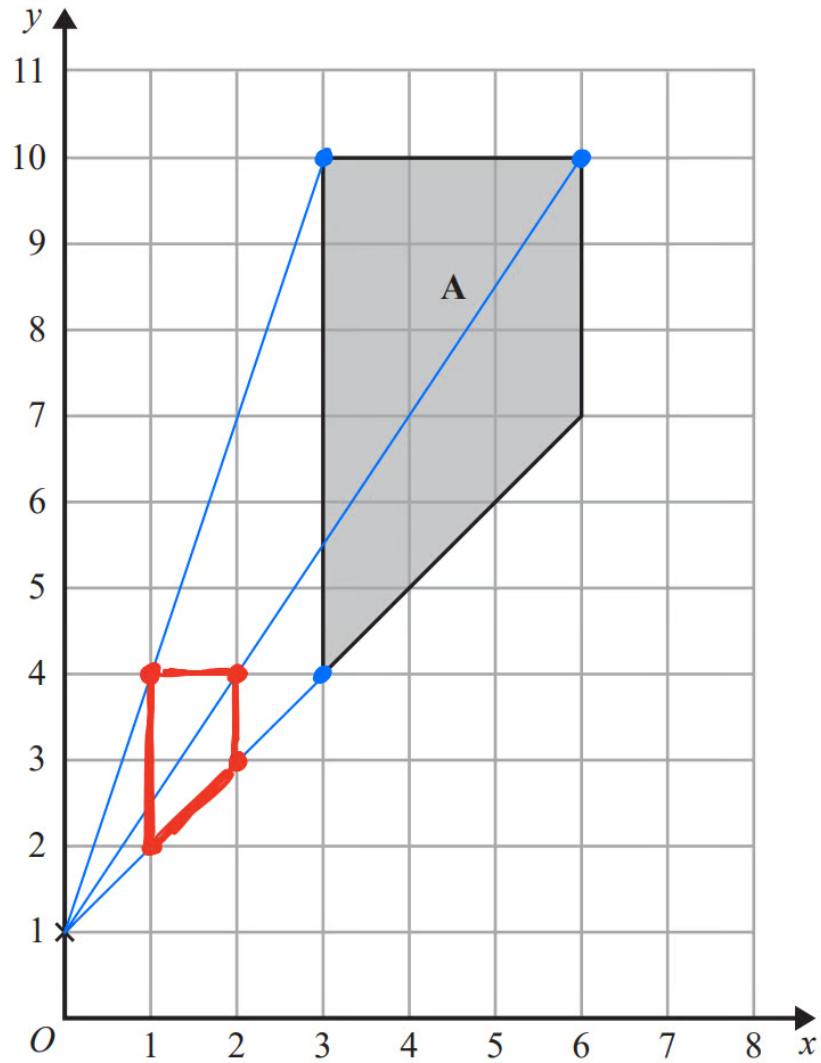


Describe the single transformation that maps triangle A onto triangle B.

TRANSLATION BY $\begin{pmatrix} 5 \\ -3 \end{pmatrix}$



Answer 3

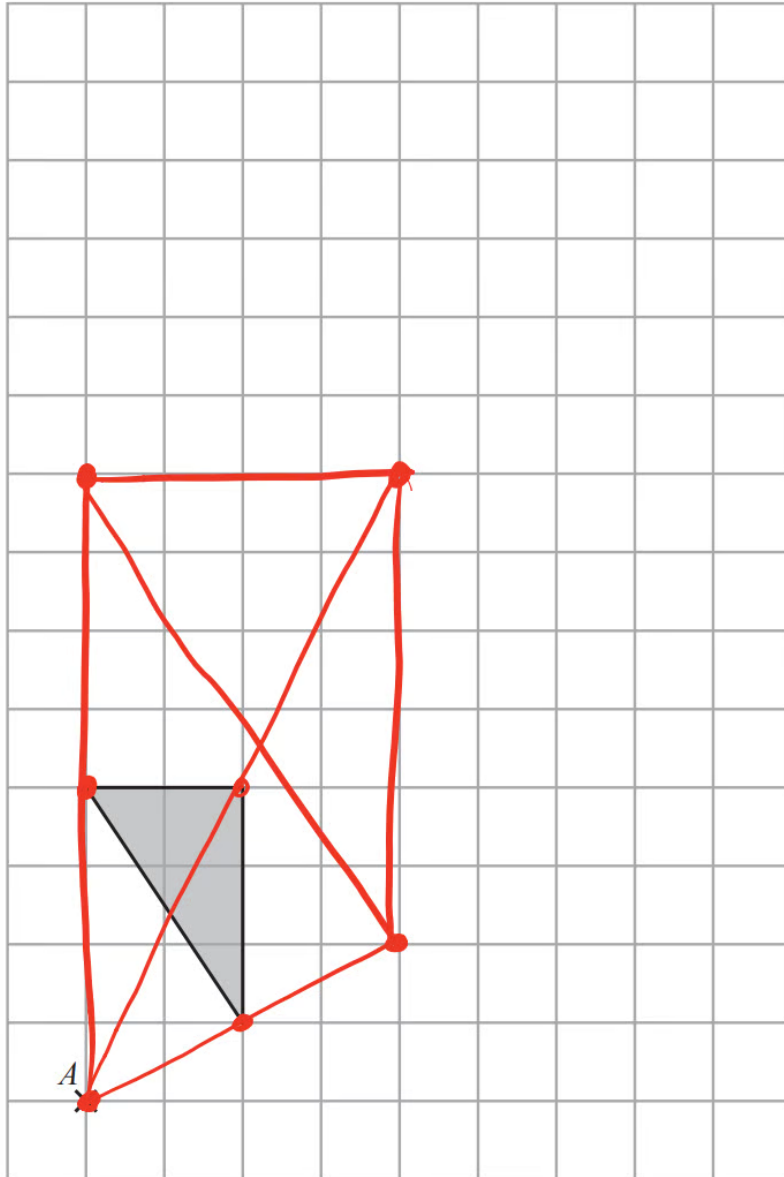


Enlarge shape A by scale factor $\frac{1}{3}$ centre (0, 1)



Answer 4

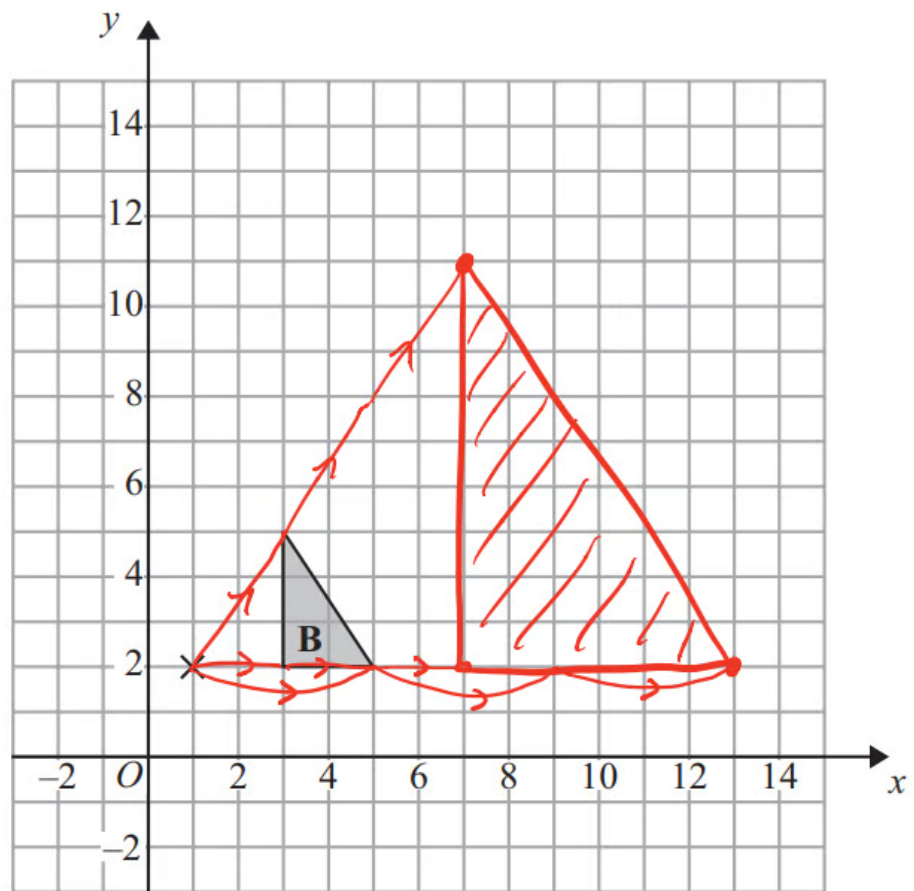
A shaded shape is shown on the grid.



On the grid, enlarge the shape by a scale factor of 2, centre A .



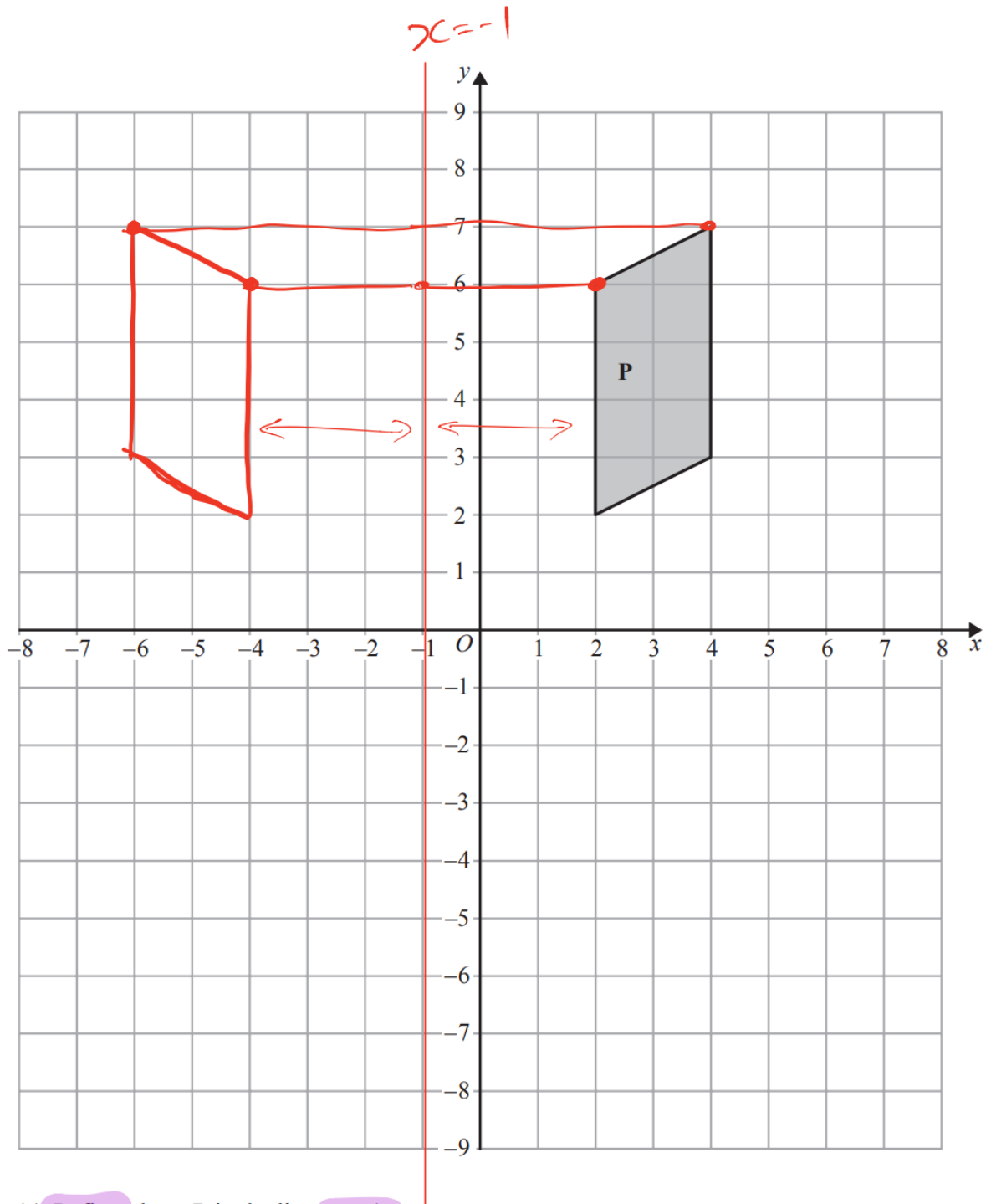
Answer 5



(b) Enlarge triangle **B** by scale factor 3, centre (1, 2).



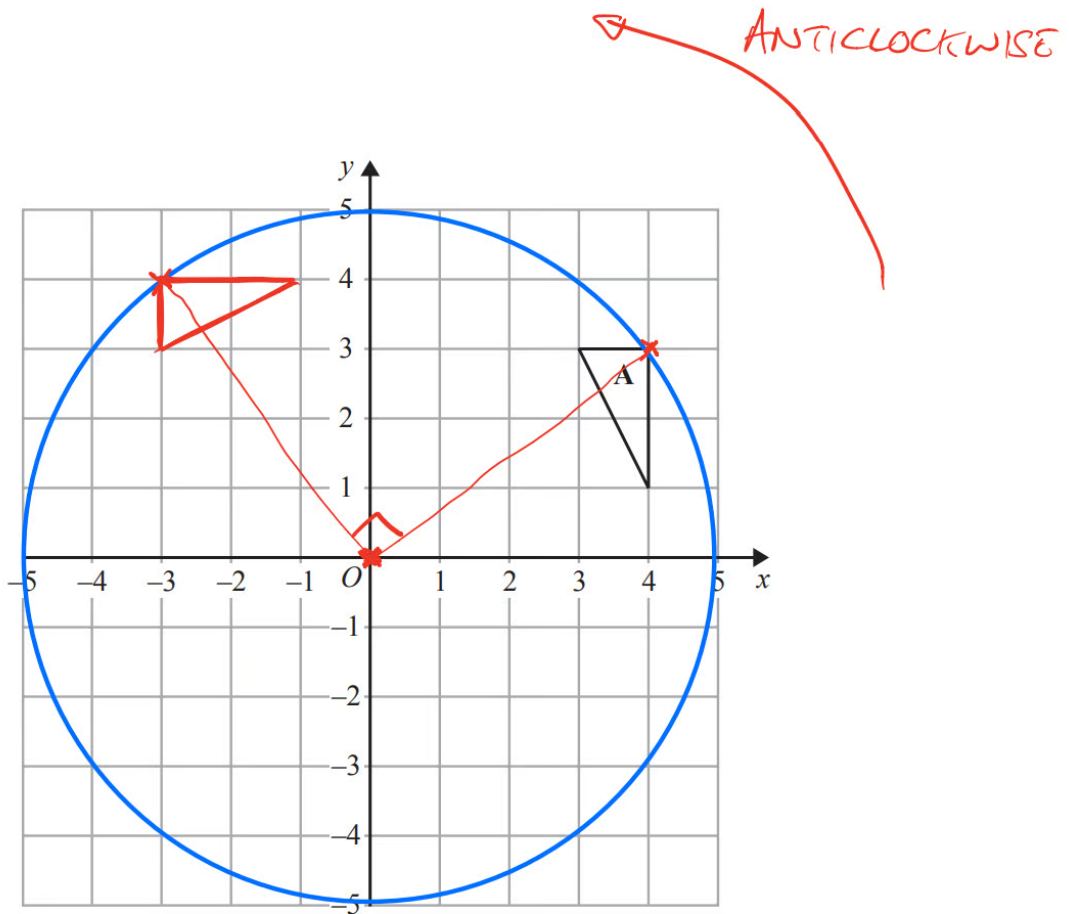
Answer 6



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



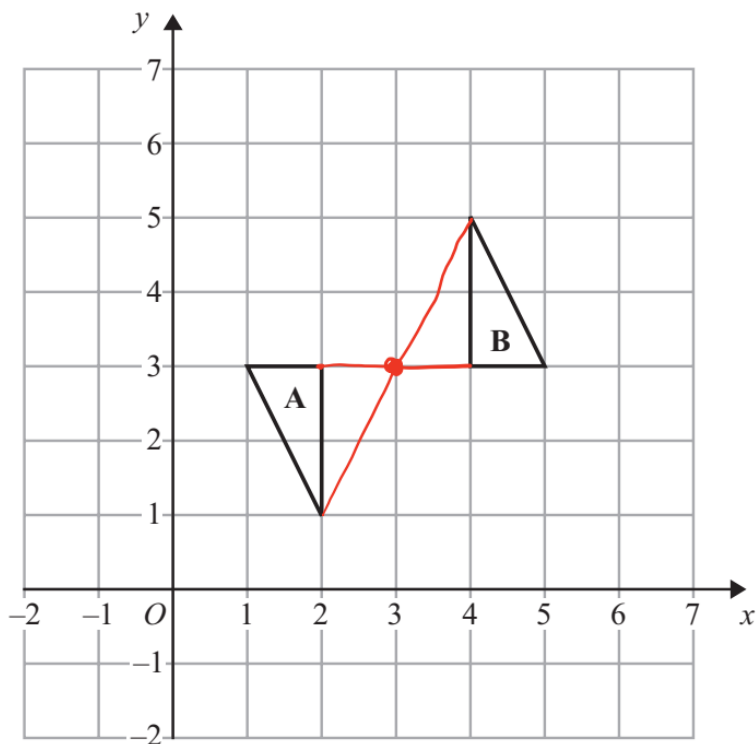
Answer 7



(a) Rotate triangle A 90° anticlockwise with centre O .



Answer 8



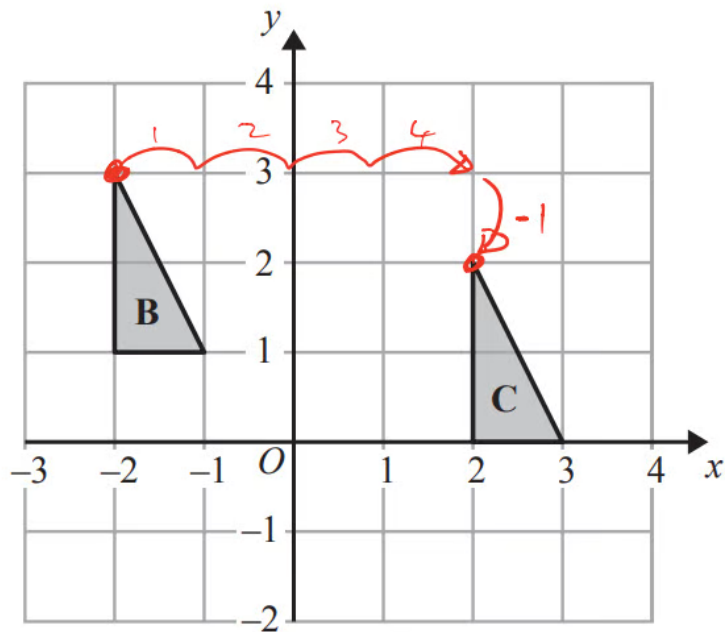
Describe fully the **single** transformation that maps triangle **A** onto triangle **B**.

ROTATION ABOUT (3, 3) THROUGH 180°

- ROTATION
- 180°
- CENTRE (3, 3)



Answer 9

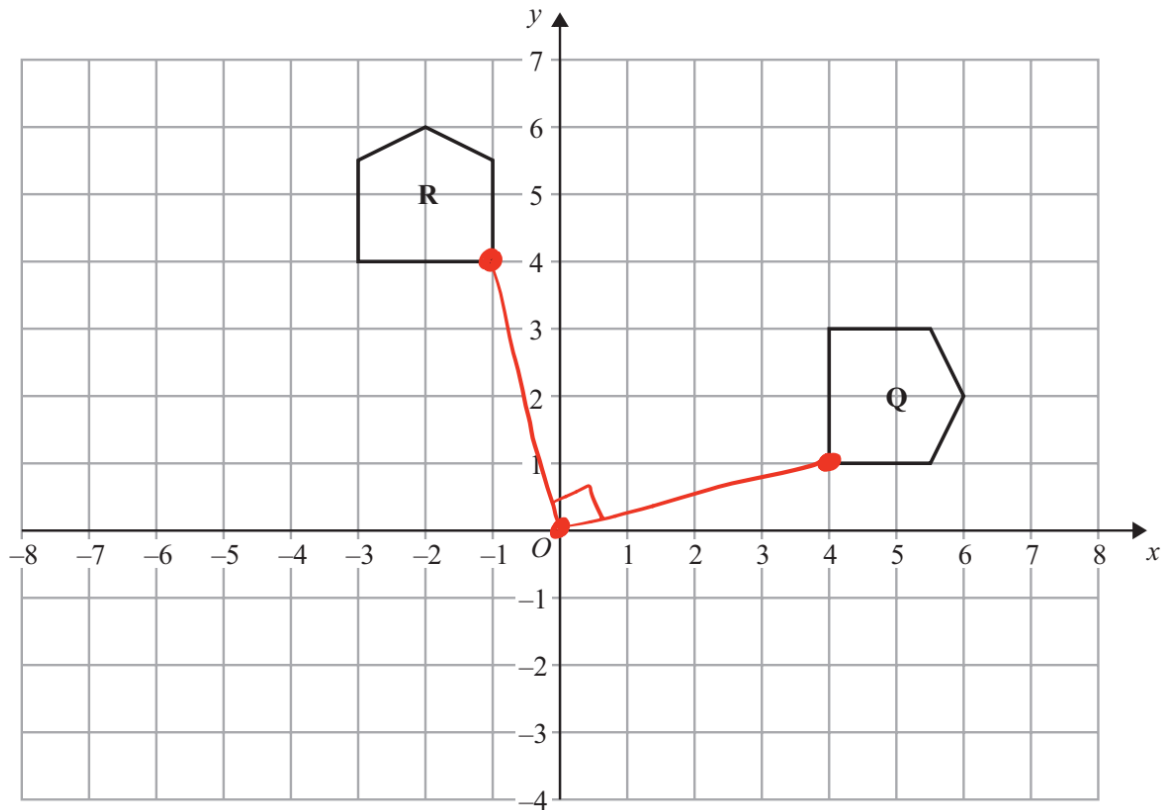


(b) Describe fully the single transformation that maps triangle **B** onto triangle **C**.

TRANSLATION BY VECTOR $\begin{pmatrix} 4 \\ -1 \end{pmatrix}$



Answer 10

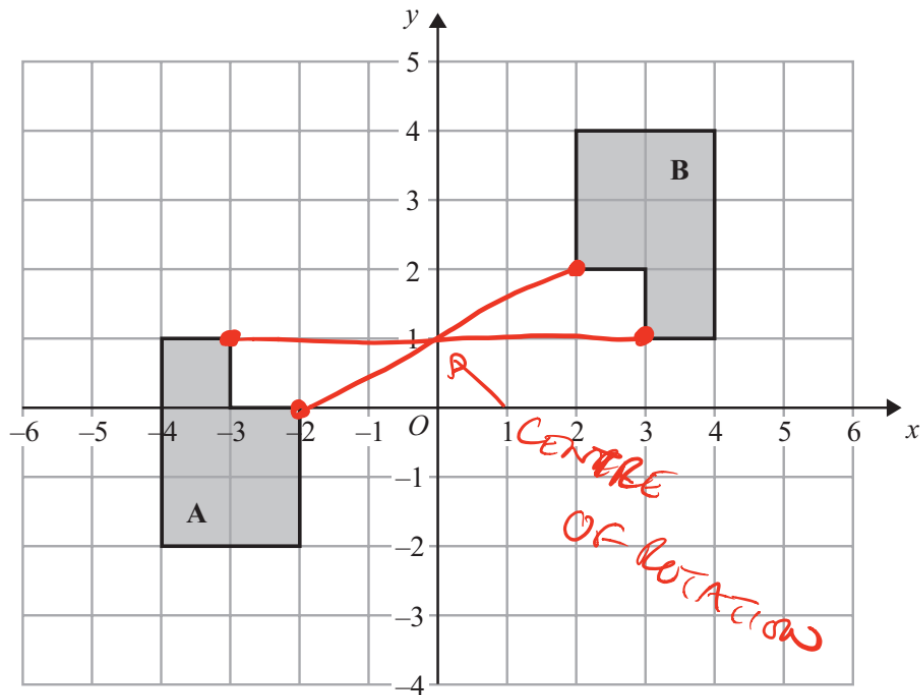


(b) Describe fully the single transformation that maps shape Q onto shape R.

ROTATION THROUGH 90° ANTICLOCKWISE
CENTRE $(0, 0)$



Answer 11



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

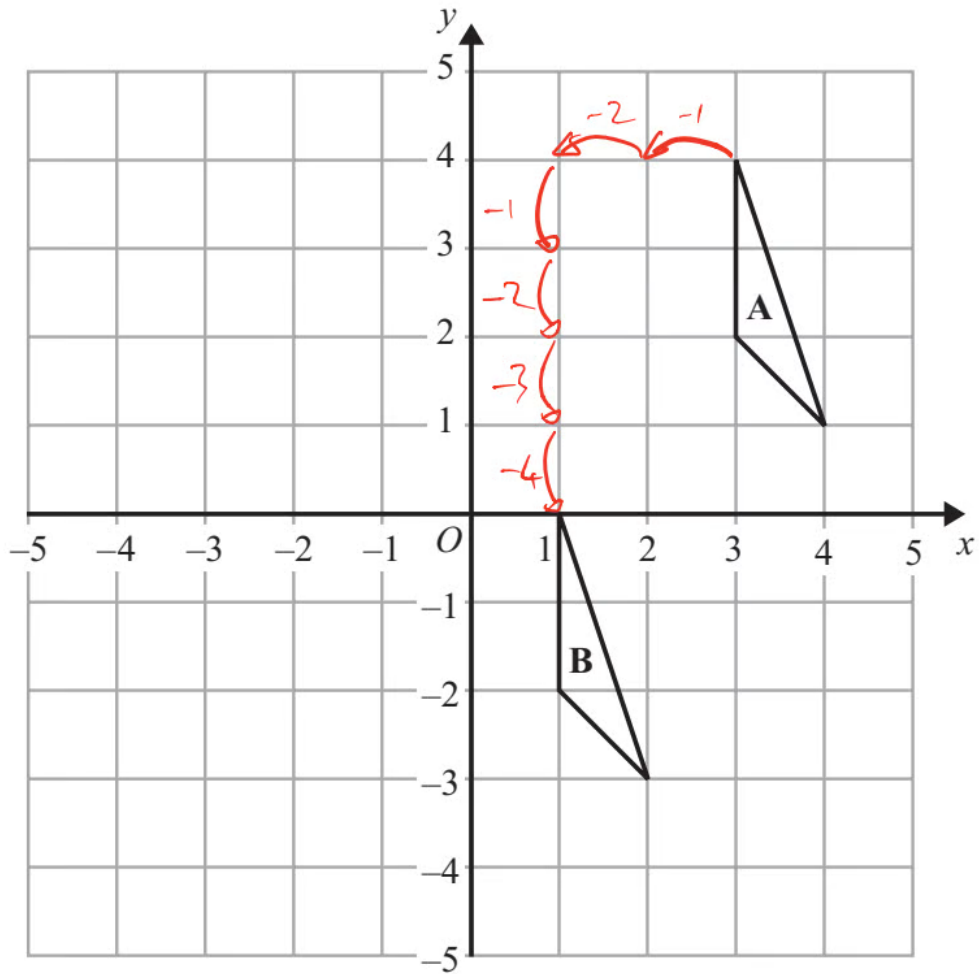
NOT TRANSLATION
NOT REFLECTION

⇒ **ROTATION** THROUGH **180°** ABOUT **$(0, 1)$**



Answer 12

(b)

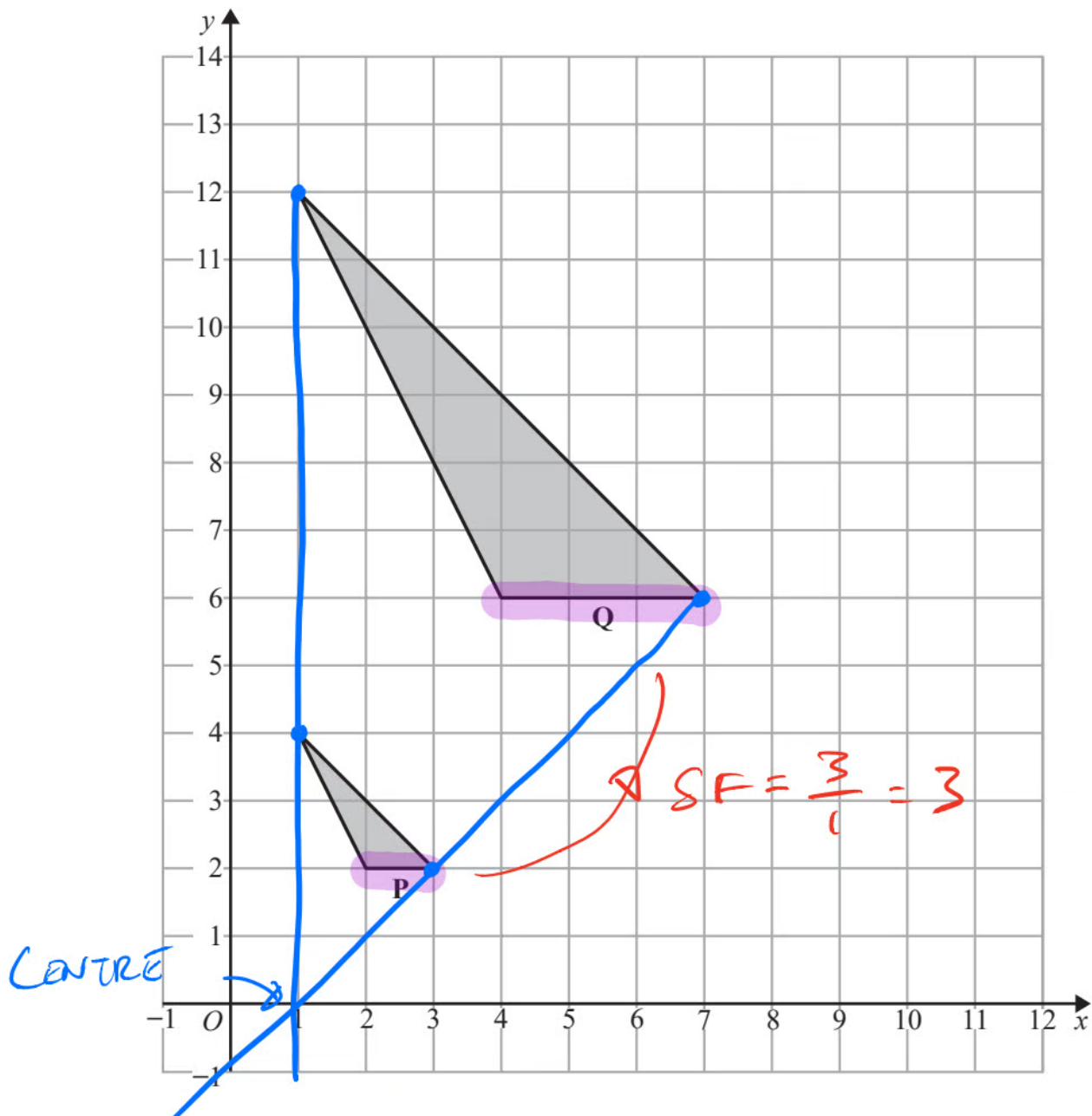


Describe fully the **single transformation** that maps triangle **A** onto triangle **B**.

TRANSLATION BY $\begin{pmatrix} -2 \\ -4 \end{pmatrix}$



Answer 13

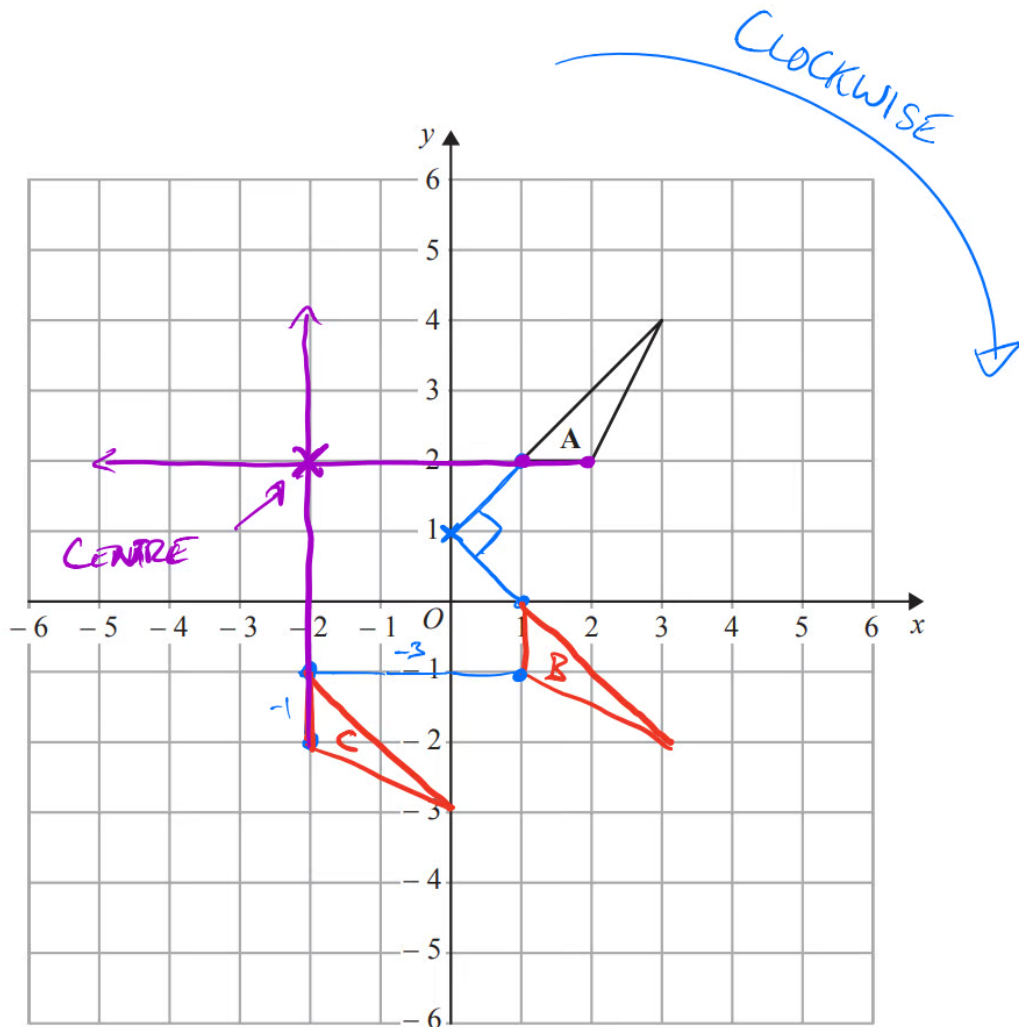


(b) Describe fully the single transformation that maps shape P onto shape Q.

ENLARGEMENT, SCALE FACTOR = 3
CENTRE (1, 0)



Answer 14



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

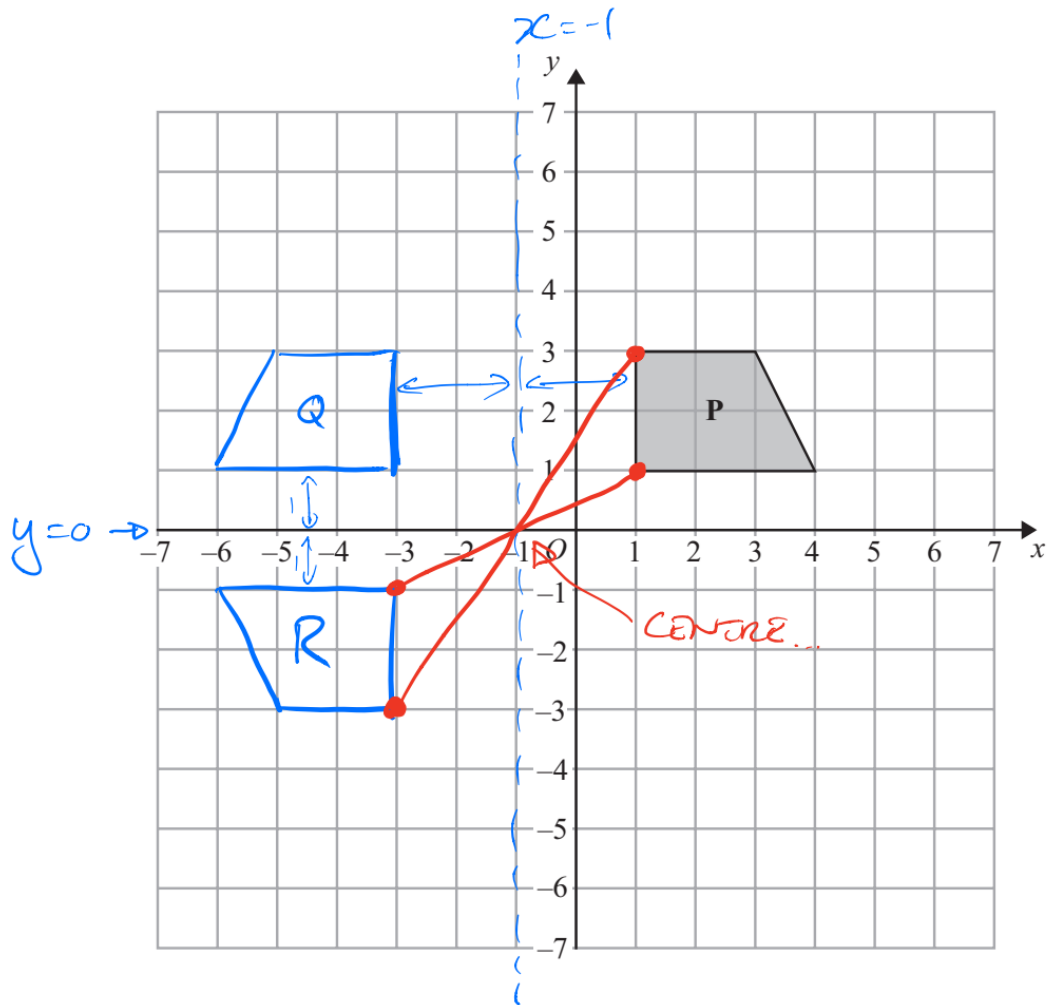
Triangle B is **translated** by the vector $\begin{pmatrix} -3 \\ -1 \end{pmatrix}$ to give triangle C.
Moved

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

ROTATION 90° CLOCKWISE ABOUT $(-2, 2)$



Answer 15



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

Shape **Q** is reflected in the line $y = 0$ to give shape **R**.

Describe fully the **single** transformation that maps shape **P** onto shape **R**.

ROTATION 180° ABOUT $(-1, 0)$