Q1.

North

Diagram **NOT**
accurately drawn

Y

S

B

The diagram shows the positions of a yacht *Y*, a ship *S* and a beacon *B*.
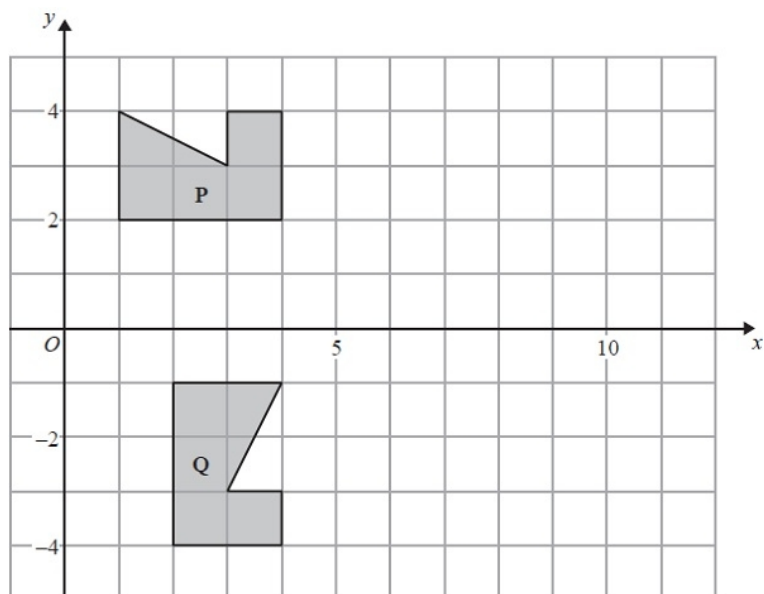The bearing of *B* from *Y* is 228°

(a) Find the bearing of *Y* from *B*.

The bearing of *S* from *Y* is 118°
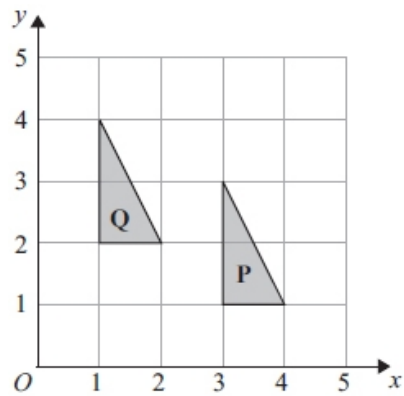
(b) Find the size of the angle *BYS*.

(c) Given also that *BY* = *SY*, find the bearing of *S* from *B*.

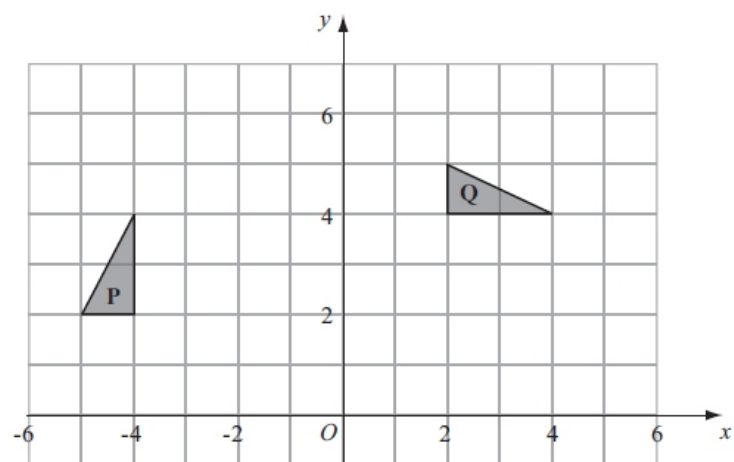**Q2.** The diagram shows a shape **P**, and a shape **Q**.

Describe fully the single transformation which maps shape **P** onto shape **Q**.

Q3.

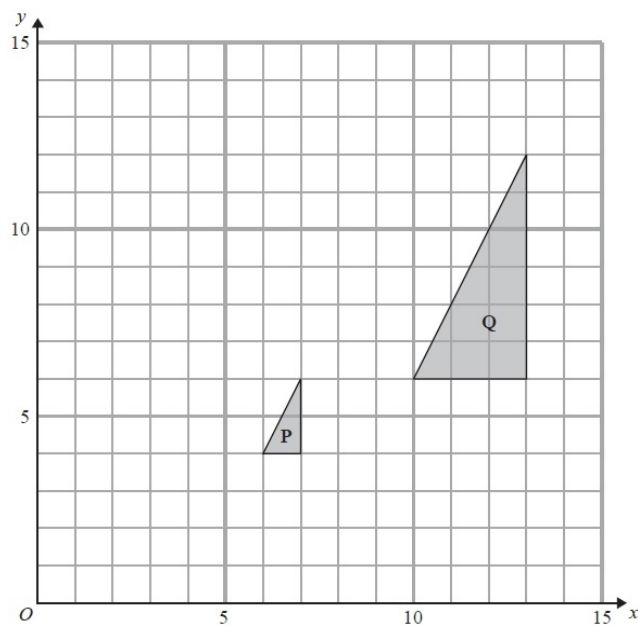Describe fully the single transformation which maps triangle **P** onto triangle **Q**.

Q4.

(a) Describe fully the single transformation which maps triangle **P** onto triangle **Q**.

(b) **Copy the axes and triangle Q.**
Reflect triangle **Q** in the line $y = x$.
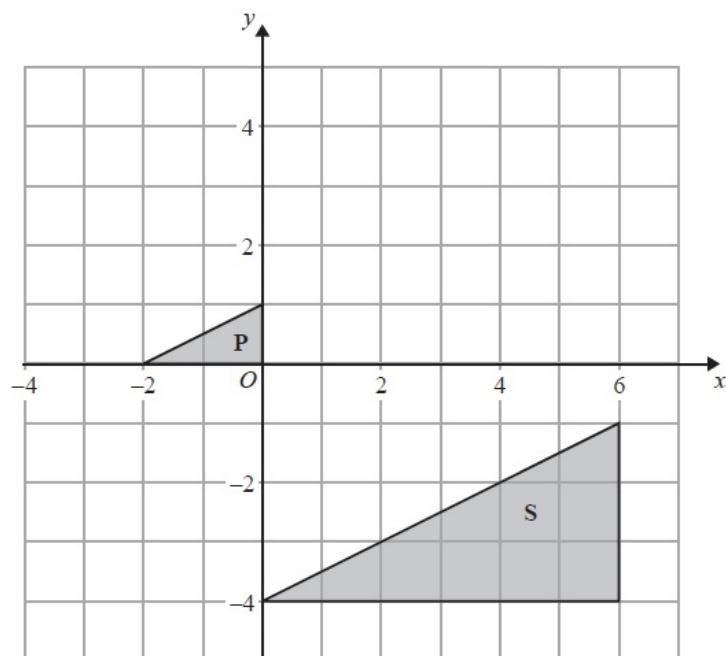Label the new triangle **R**.

Q5.

(a) Describe fully the single transformation which maps triangle **P** onto triangle **Q**.

(b) **Draw a copy of the grid.** On the grid, translate triangle **Q** by the vector $\begin{pmatrix} -8 \\ 2 \end{pmatrix}$
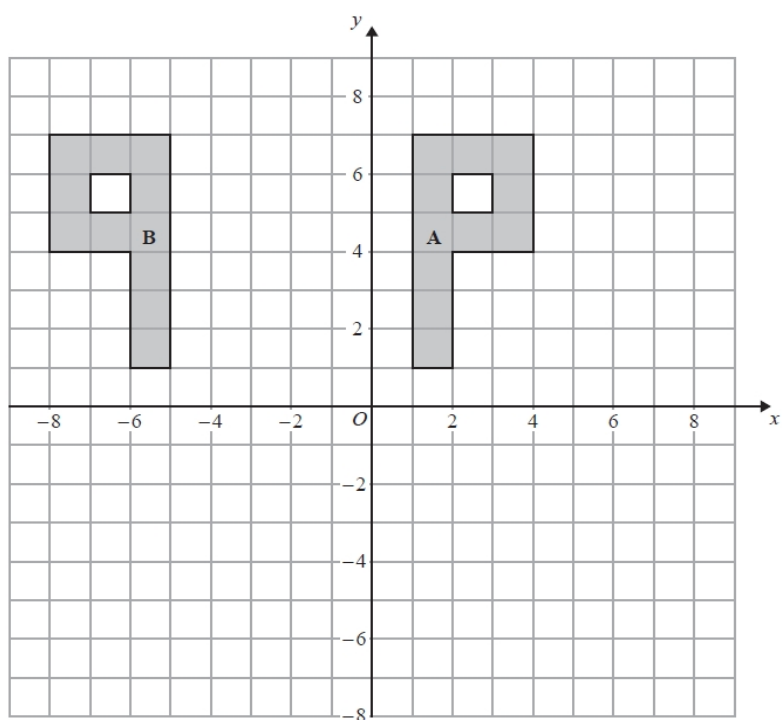
Label the new triangle **R**.

(c) Describe fully the single transformation which maps triangle **R** onto triangle **P**.

Q6.

Describe fully the single transformation that maps triangle **S** onto triangle **P**.
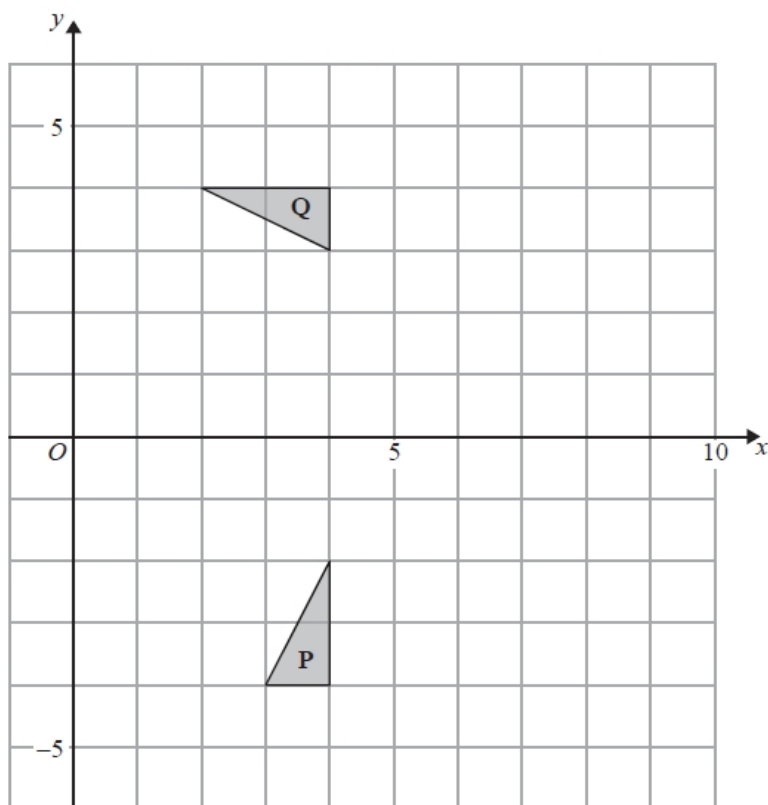
Q7.

(a) Describe fully the single transformation that maps shape **A** onto shape **B**.
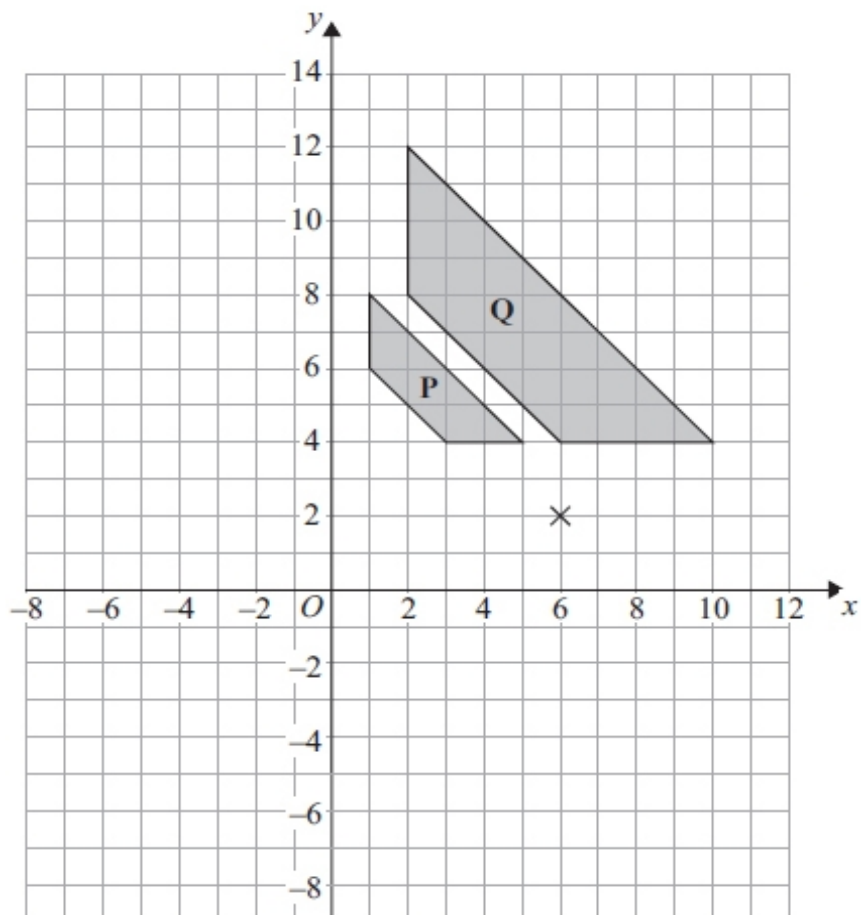
(b) **Draw a copy of the grid.** On the grid, rotate shape **A** 90° clockwise about the origin *O*.
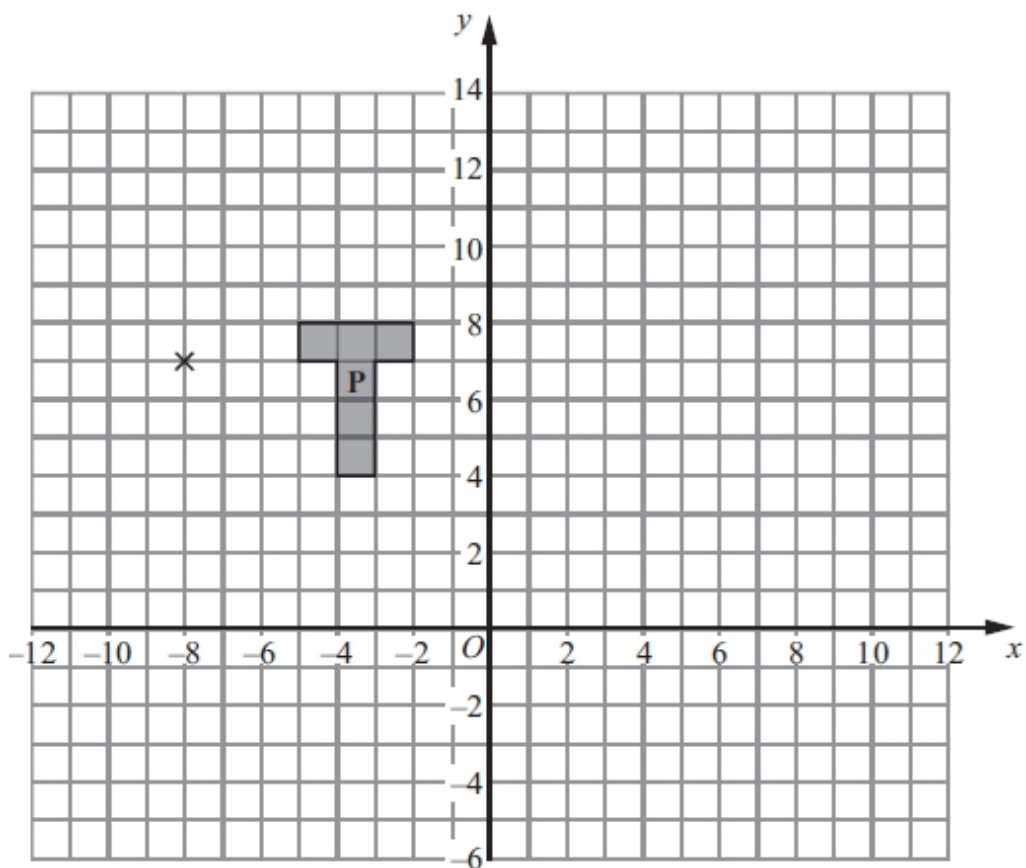Label the new shape **C**.

Q8.

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

Q9.

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

(b) **Draw a copy of the grid.** On the grid, rotate shape **Q** 180° about the point (6, 2).
   Label the new shape **R**.

Q10.

(a) **Draw a copy of the grid.** On the grid, enlarge shape **P** with scale factor 3 and centre (−8, 7).
Label the new shape **Q**.

(b) On the same grid, rotate shape **P** through 90° clockwise about the point (−8, 7).
Label the new shape **R**.