Bishops Online Tutoring

Education Consultancy

Edexcel GCSE Mathematics
MIXED TRANSFORMATIONS

Materials Required:

- Pen
- HB Pencil
- Ruler (in centimetres and millimetres)
- Protractor
- Compass

Information:

- The marks allocated for each question are displayed within brackets – utilise this information to gauge the appropriate amount of time to dedicate to each question
- Questions marked with an asterisk (*) will assess your written communication; be careful of spelling, punctuation and grammar with these questions

Instructions:

- Use a black ink pen to answer all questions
- Fill your name in the section below
- Answer the questions in the spaces provided
- Show your working out for all answers

Advice:

- Carefully read the question before attempting to answer it
- Be vary of time and try to answer every question
- If you have enough time in the end, go back and check your answers. A good way to check your answers is to retry the question with the hope of getting the same answer as before without looking at your working out from before
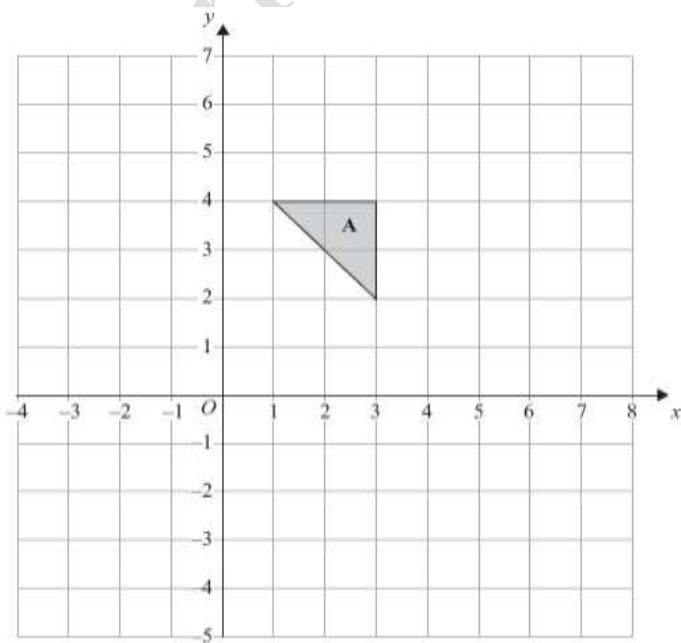
NO CALCULATOR ALLOWED

NAME:

1.
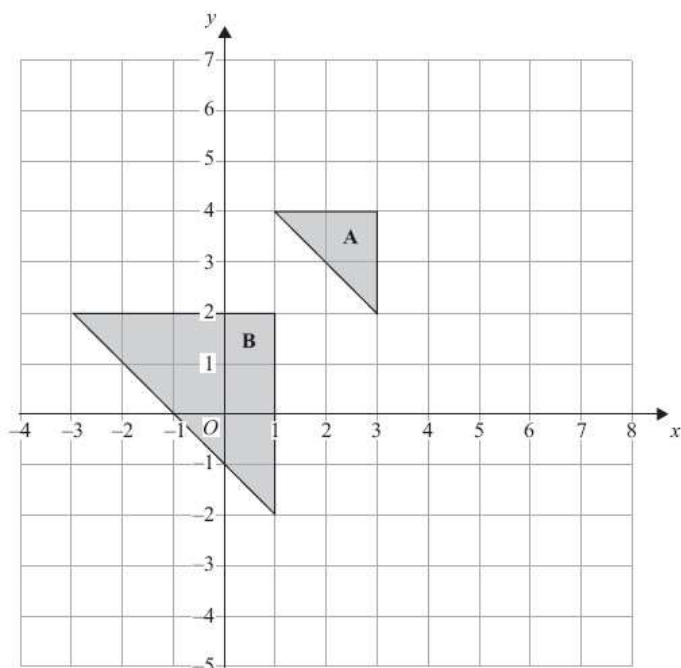
Triangle **A** and triangle **B** are drawn on the grid.

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

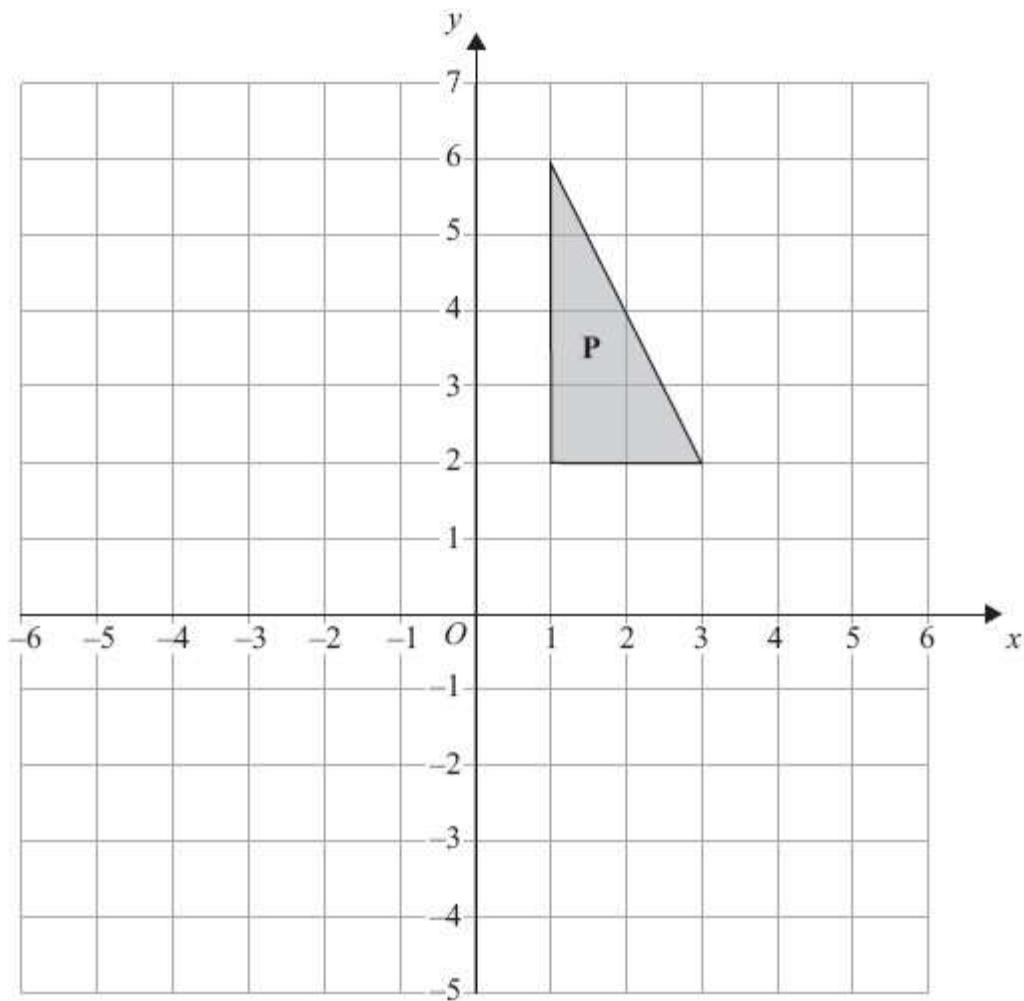..

....

(3)

(b) Reflect triangle **A** in the line $x = 4$

(2)

(5 marks)

2.

Triangle **P** is drawn on a coordinate grid.

The triangle **P** is reflected in the line $x = -1$ and then reflected in the line $y = 1$ to give triangle **Q**.
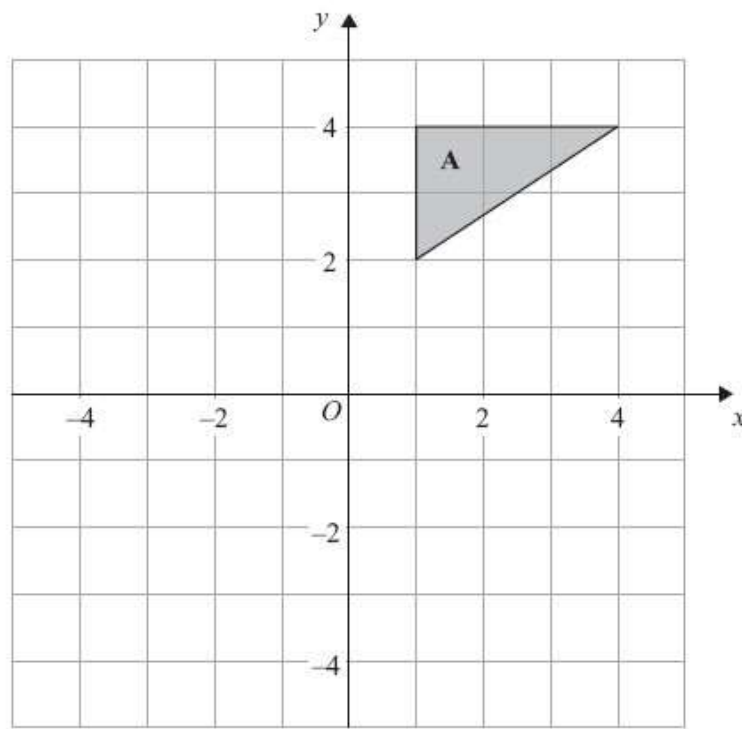
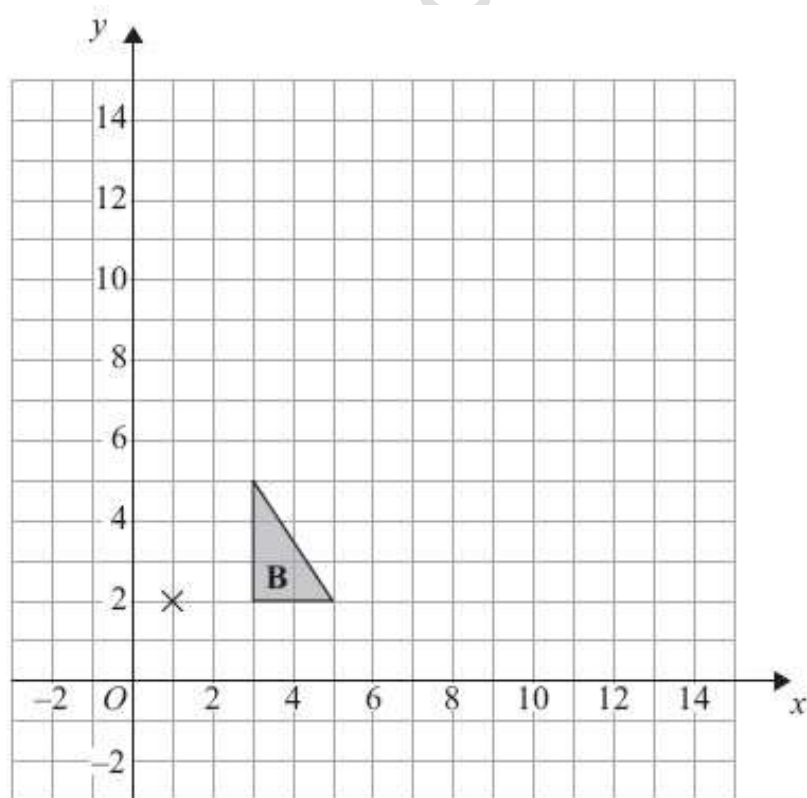Describe fully the single transformation which maps triangle **P** onto triangle **Q**.

....

....

(3 marks)

3.

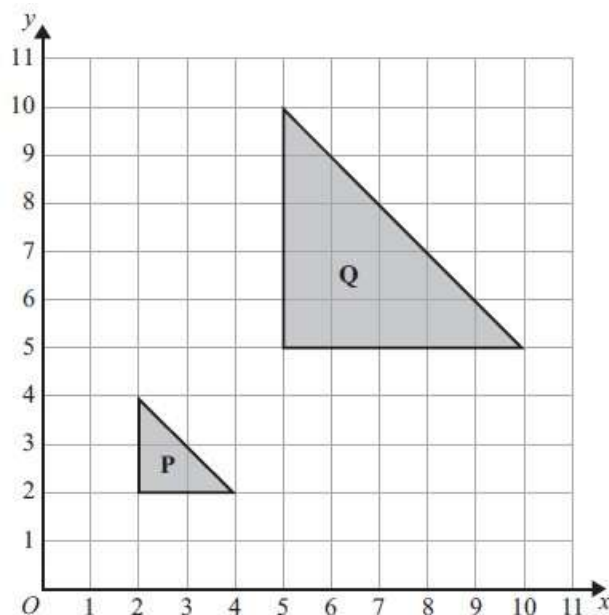(a) Rotate triangle **A** 90° clockwise, centre *O*.

(2)

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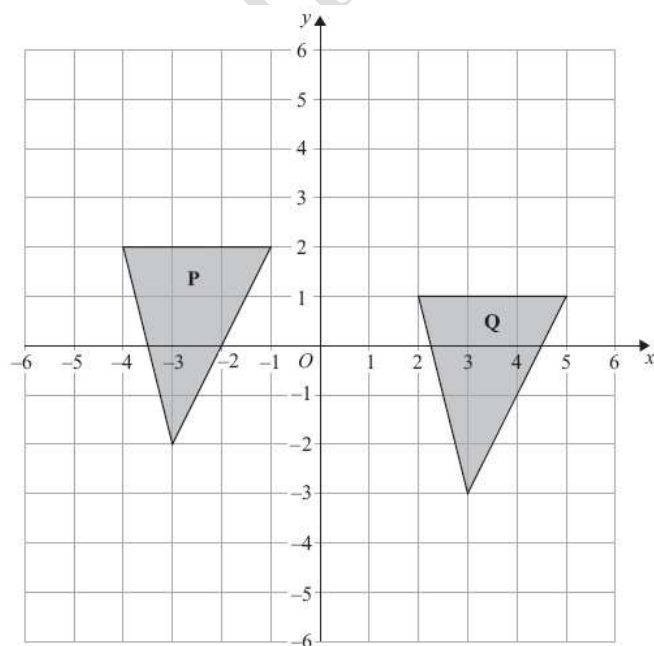
(3)

(5 marks)

4.

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

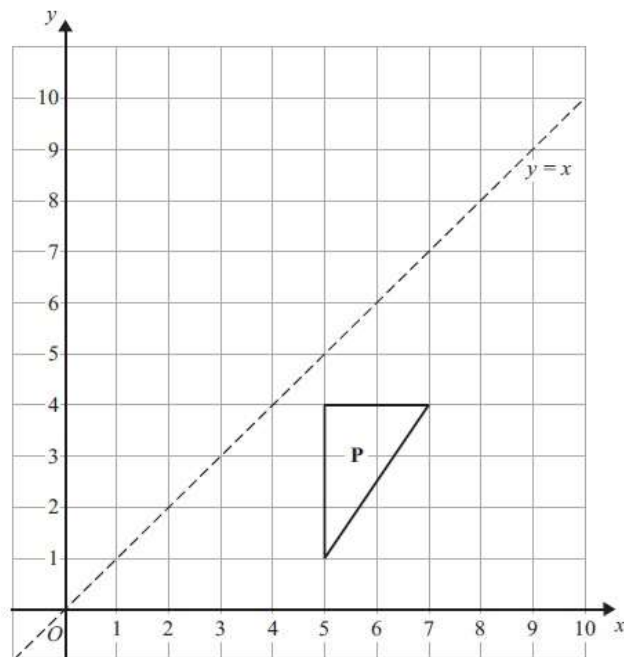..

....

(3 marks)

5.

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

....

....
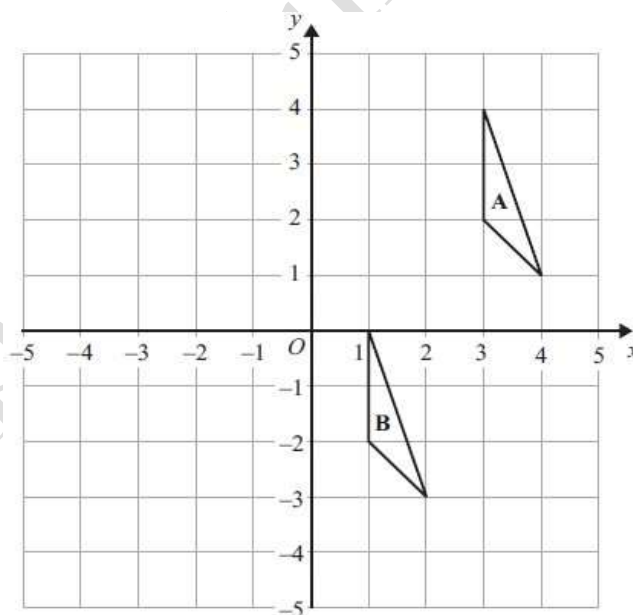
(3 marks)

6. (a)

Reflect shape **P** in the line $y = x$

(2)

(b)

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

....

....
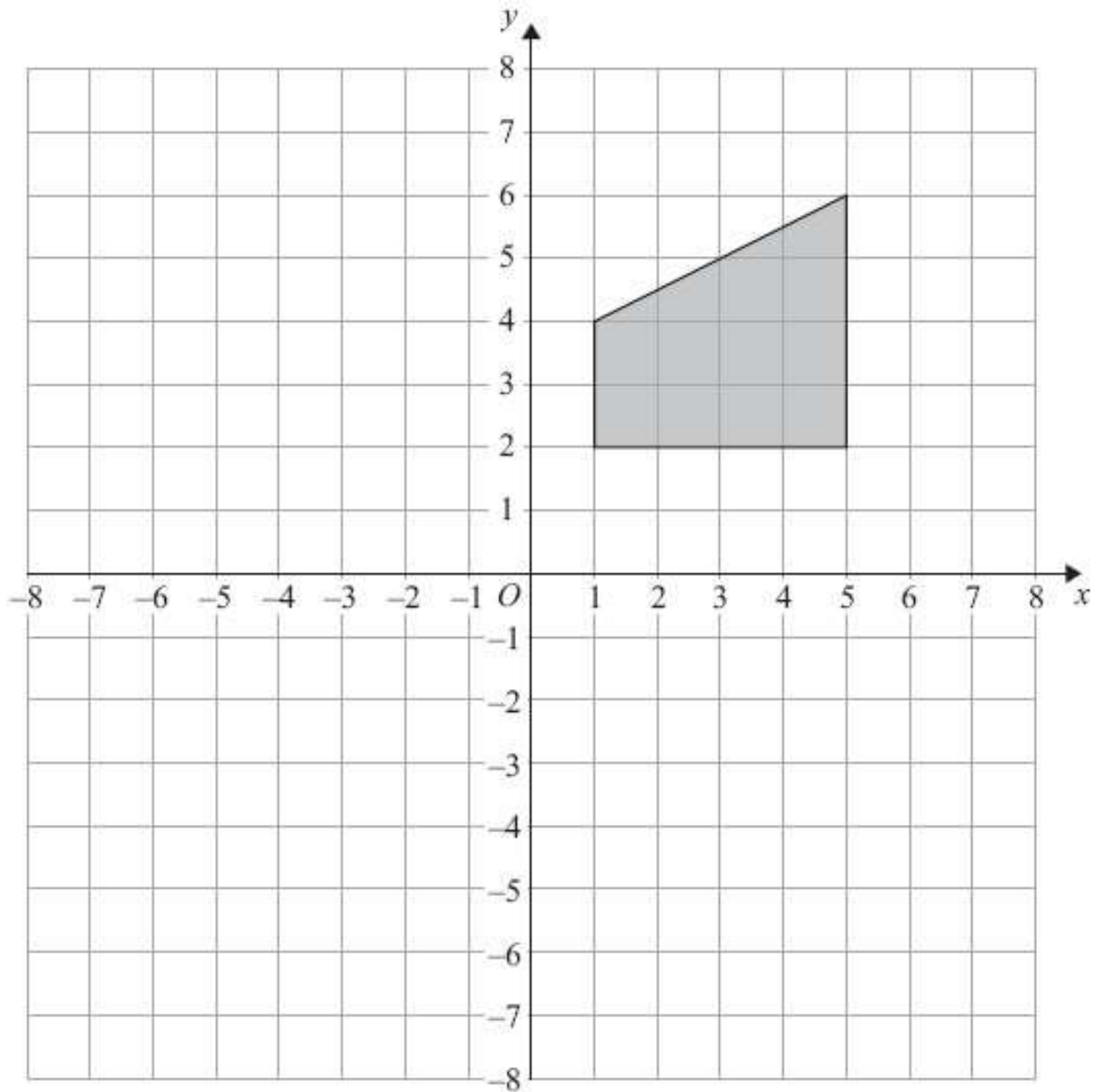
(2)

(4 marks)

7.
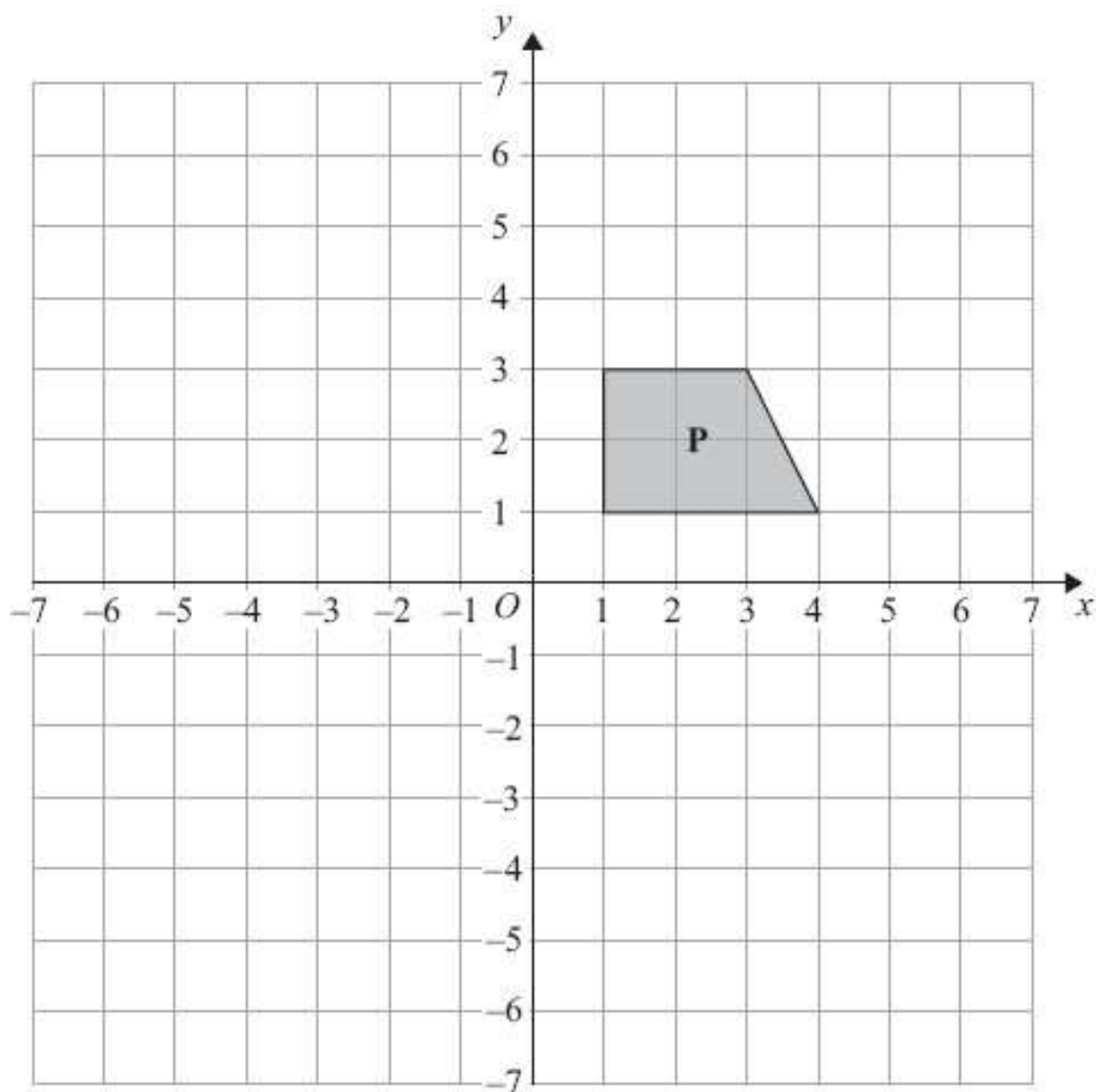
Shape **P** is reflected in the line $x = -1$ to give shape **Q**.

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**.

....

....

(3 marks)

8.

Rotate the shaded shape 90^0 clockwise about the point (1, -1).

(3 marks)