



**Bishops
Online
Tutoring**



Education Consultancy

Edexcel GCSE Mathematics

TRANSLATIONS

Materials Required:

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

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

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

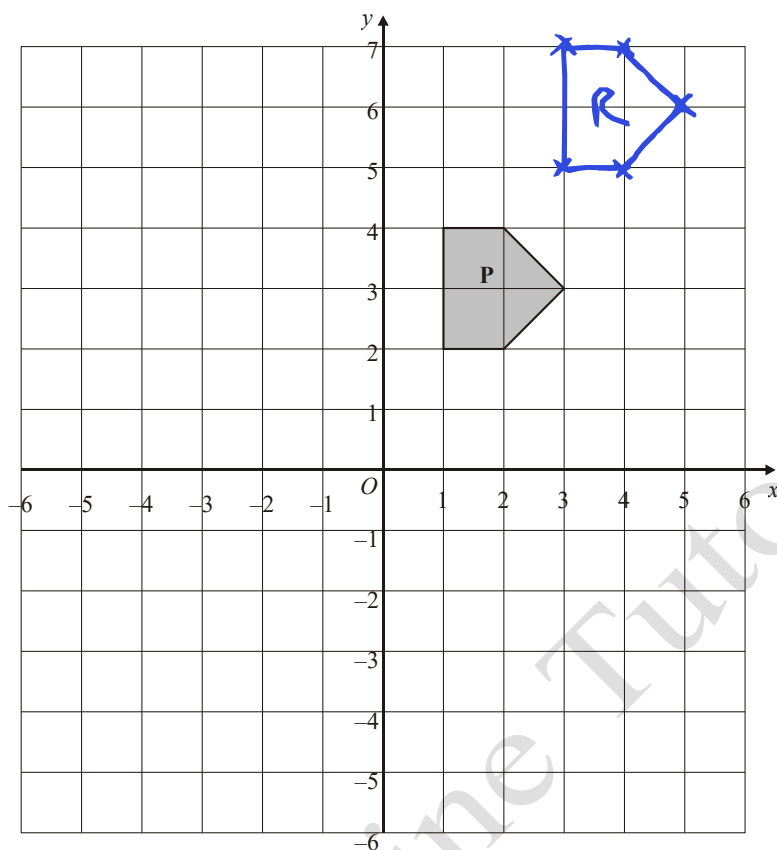
Advice:

- 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.

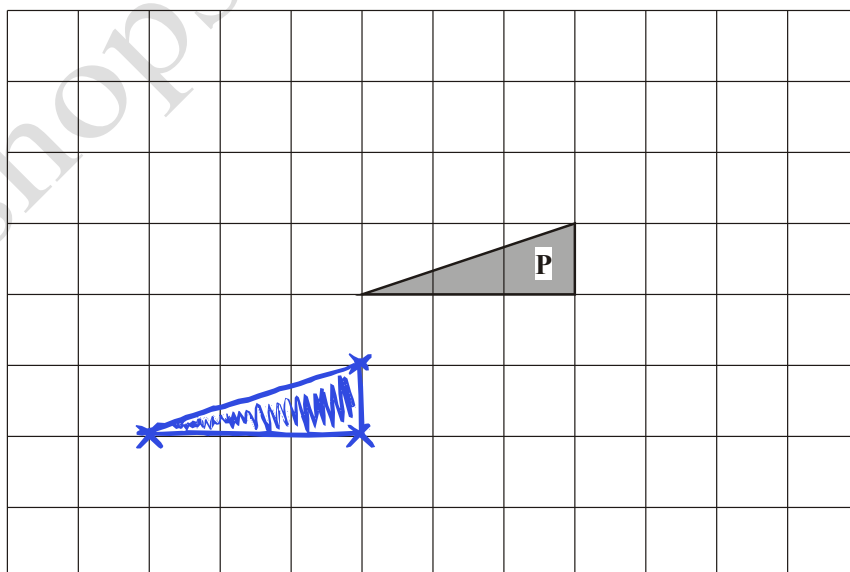


On the grid, translate the shaded shape **P** by 2 units to the right and 3 units up.

Label the new shape **R**.

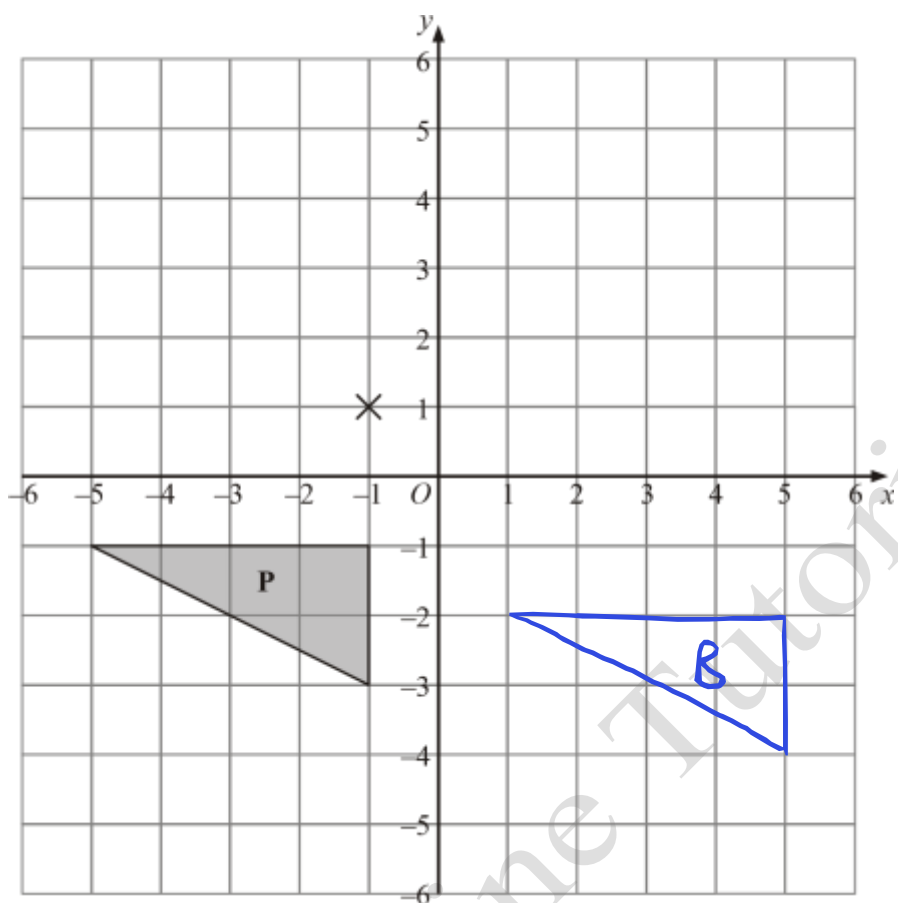
(Total 2 marks)

2. Translate shape **P** 3 squares to the left and 2 squares down.



(Total 1 mark)

3.

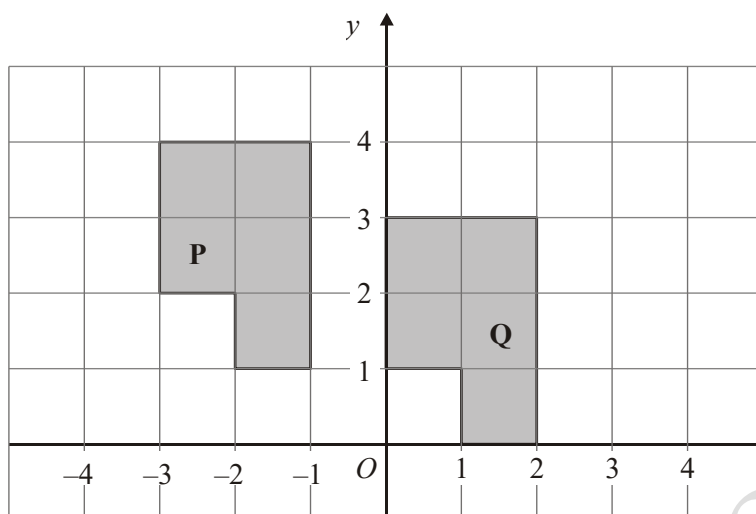


Translate triangle **P** by the vector $\begin{pmatrix} 6 \\ -1 \end{pmatrix}$

Label the new triangle **B**.

(2)
(Total 2 marks)

4.



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

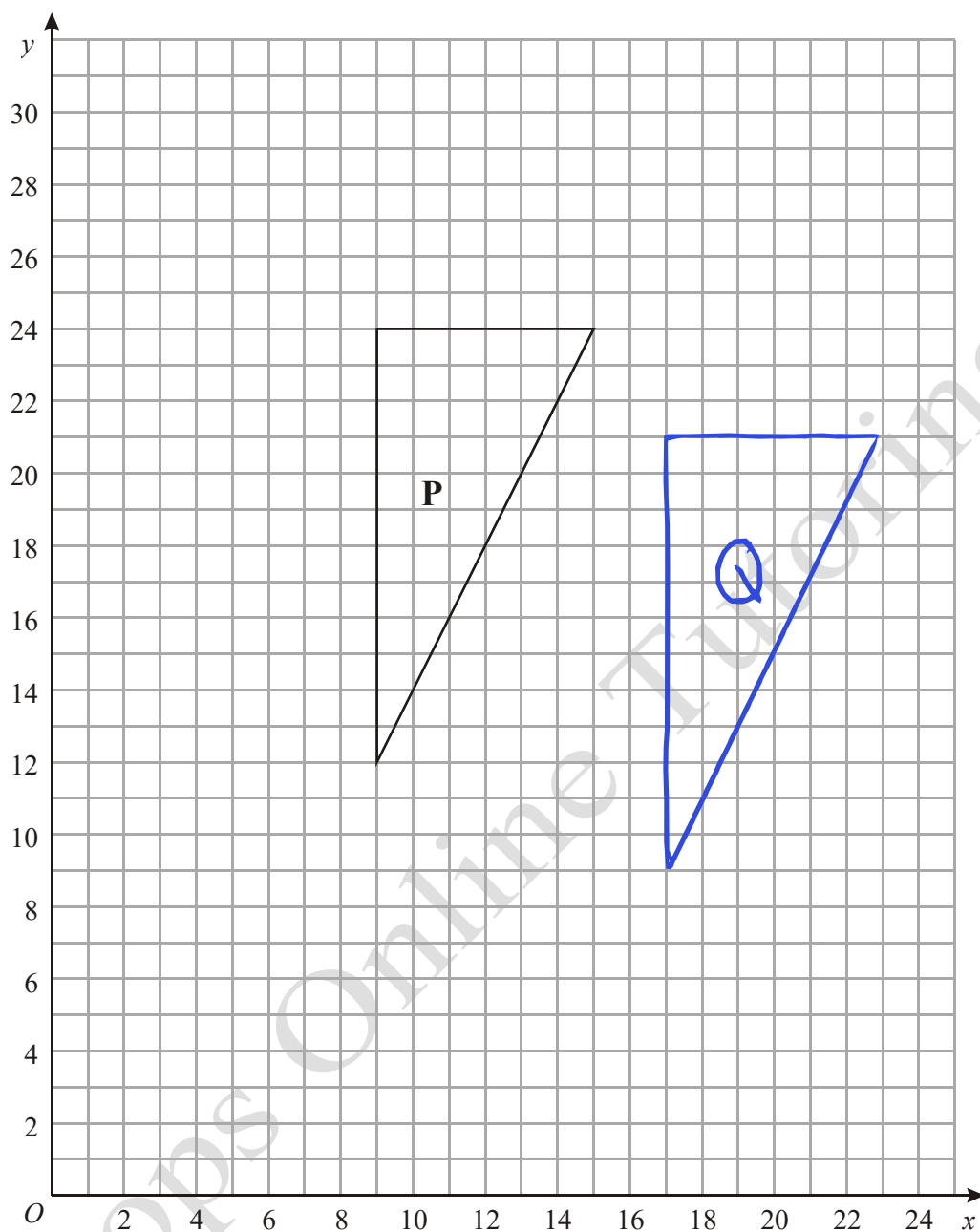
Translate shape P by vector $\begin{pmatrix} 3 \\ -1 \end{pmatrix}$

.....

.....

(2)
(Total 2 marks)

5.



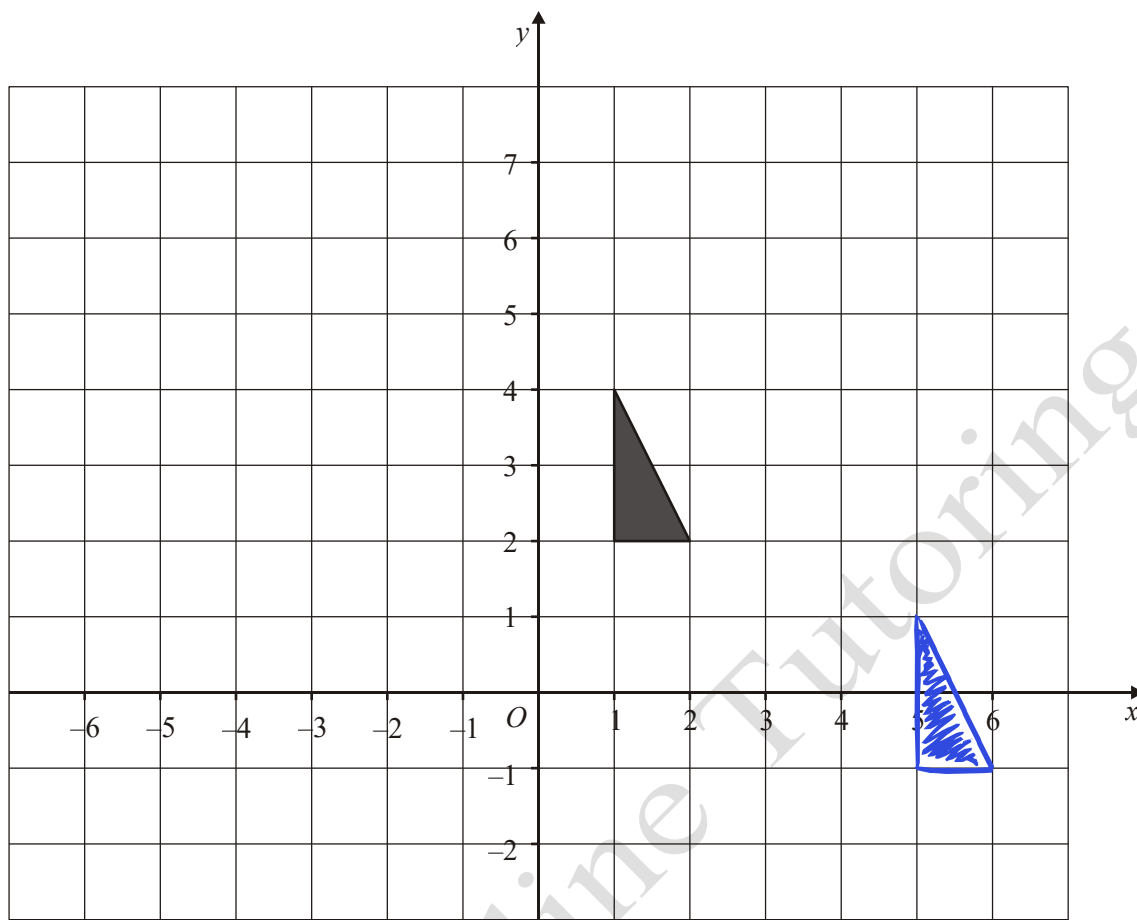
On the grid, translate triangle **P** by the vector $\begin{pmatrix} 8 \\ -3 \end{pmatrix}$

Label the new triangle **Q**.

(2)

(Total 2 marks)

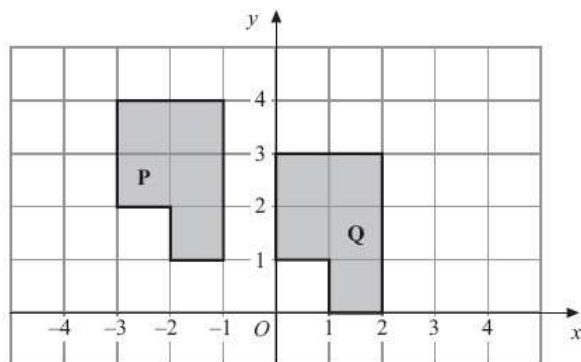
6.



Translate the triangle by the vector $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$

(Total 2 mark)

7.



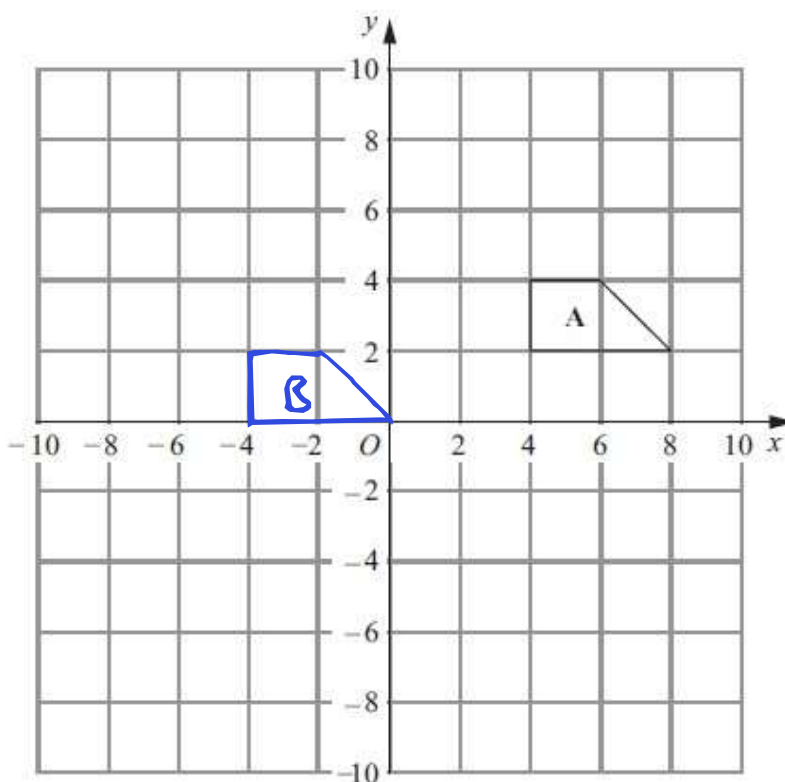
Describe fully the single transformation that will map shape **P** onto shape **Q**.

Translate shape P by vector $\begin{pmatrix} 3 \\ -1 \end{pmatrix}$

(2)

(Total 2 marks)

8.

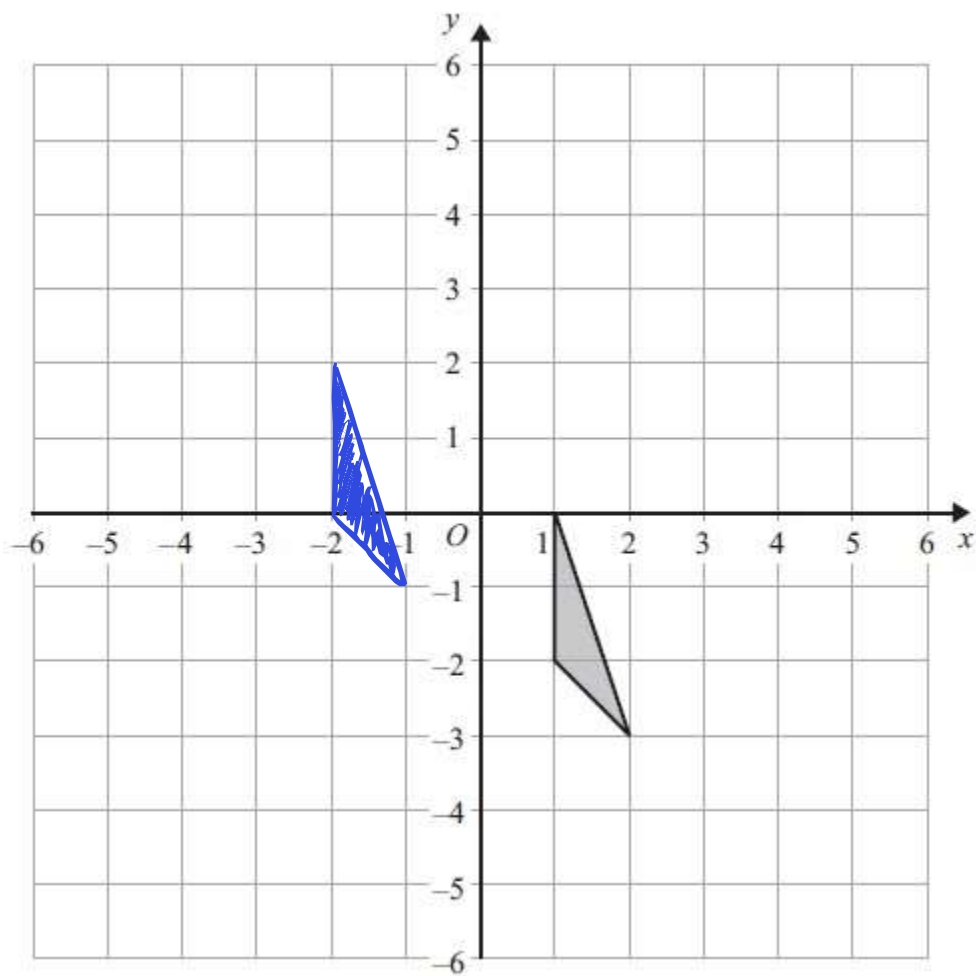


Translate shape **A** by $\begin{pmatrix} -8 \\ -2 \end{pmatrix}$

Label the new shape **B**.

(Total 2 marks)

9.



Translate the triangle by $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$

(Total 2 marks)