

Name:

Date:

Transformation: Translations

GCSE

Edexcel

Mathematics

Grade (9-1)

Mark

Score (%)

<hr/> 17

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Materials

For this paper you must have:

- Ruler
- Pencil, Rubber, Protractor and Compass
- Scientific calculator, which you are expected to use when appropriate

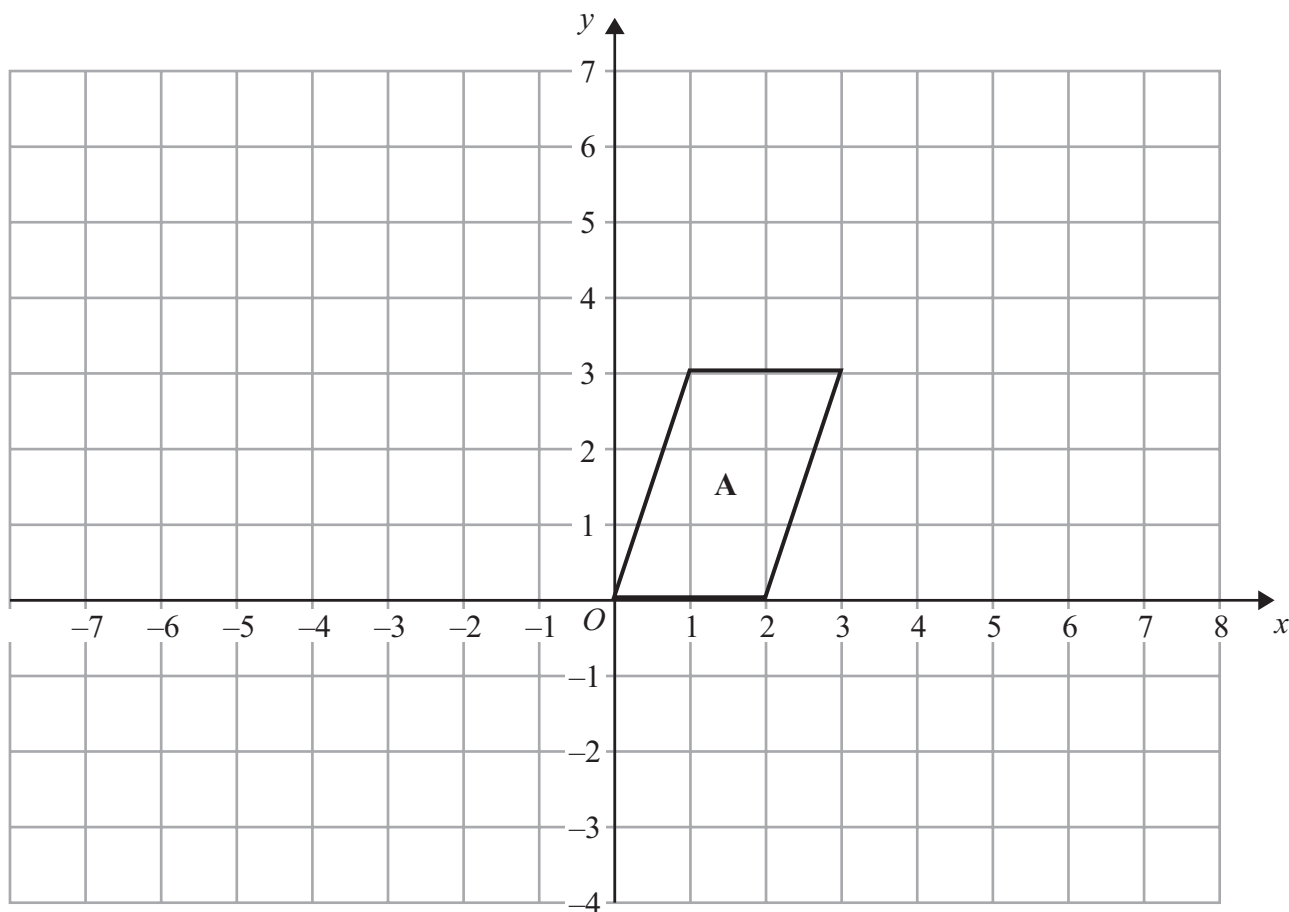
Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown
- Do all rough work in this book. Cross out any rough work you don't want to be marked

Information

- The marks for the questions are shown in brackets

1

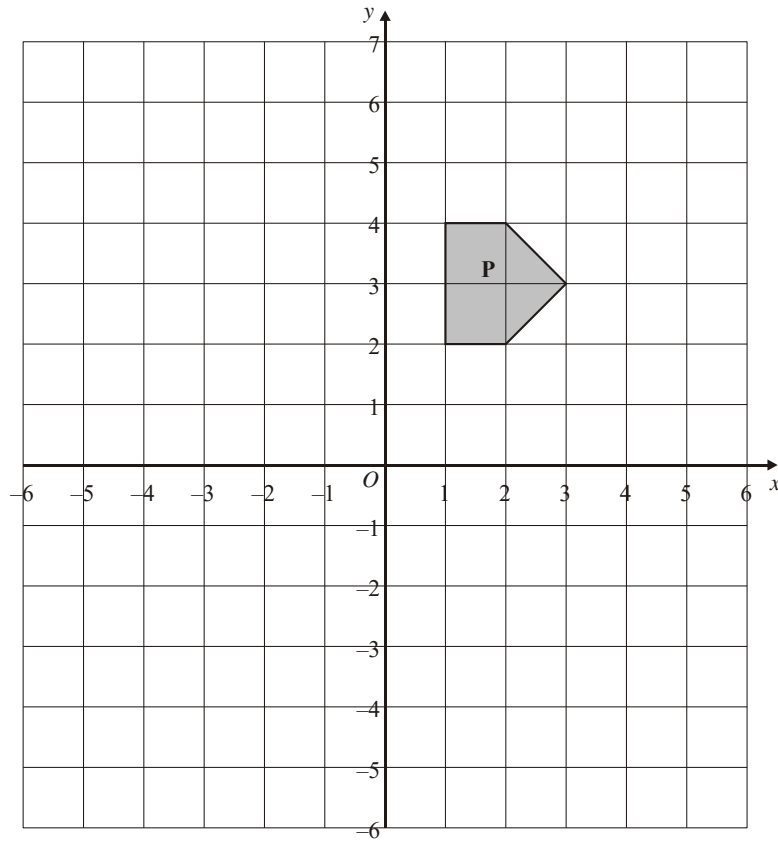


(a) Translate shape A by the vector $\begin{pmatrix} -6 \\ 0 \end{pmatrix}$ and call it shape B (1)

(b) Translate shape A by the vector $\begin{pmatrix} 2 \\ 3 \end{pmatrix}$ and call it shape C (1)

(Total for question 1 is 2 marks)

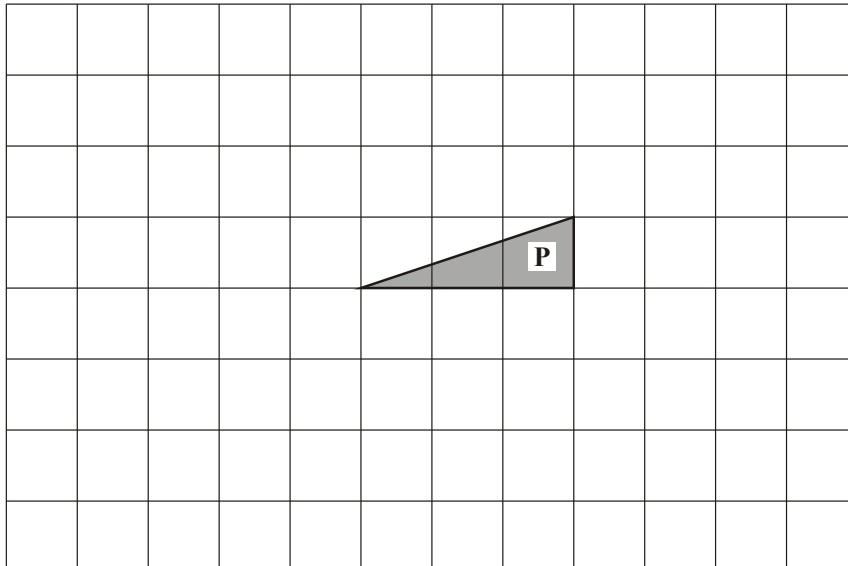
2



Translate shape A by the vector $\begin{pmatrix} 0 \\ -5 \end{pmatrix}$ and call it shape Q.

(Total for question 2 is 2 marks)

3

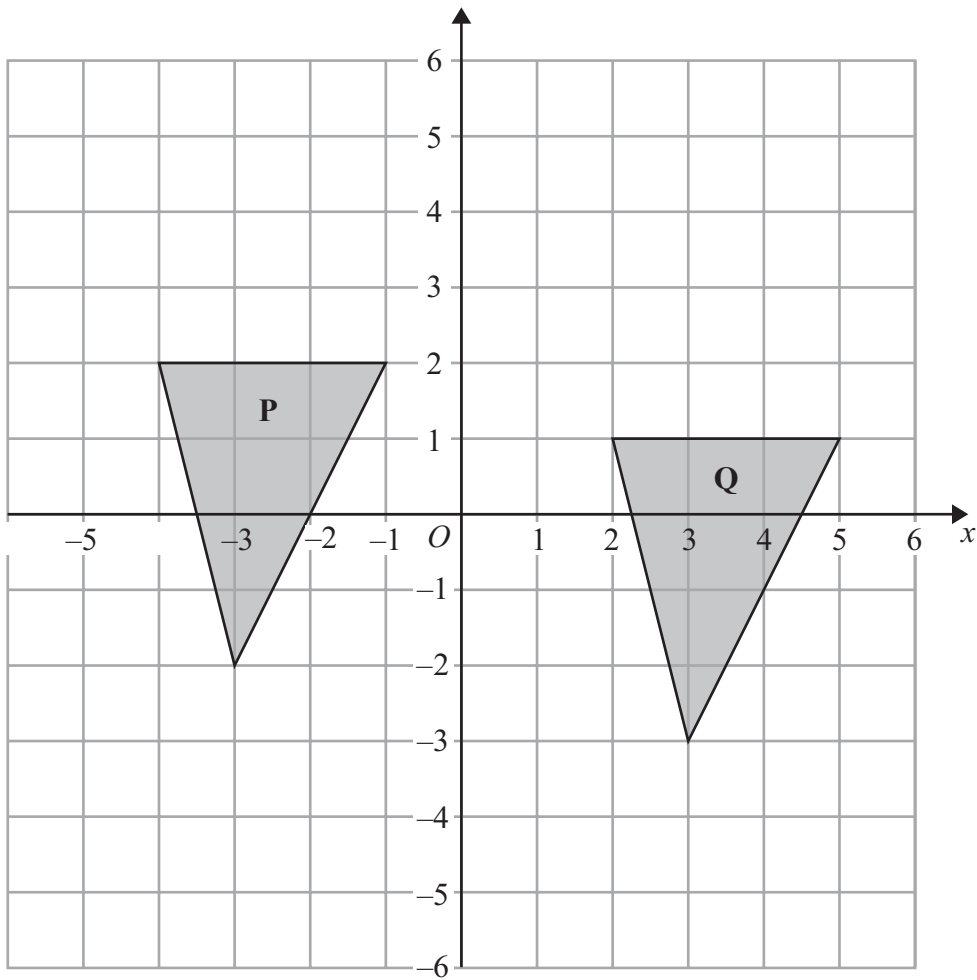


Translate shape A by the vector $\begin{pmatrix} -2 \\ -3 \end{pmatrix}$ and call it shape Q.

(Total for question 3 is 2 marks)

4

Leave blank



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

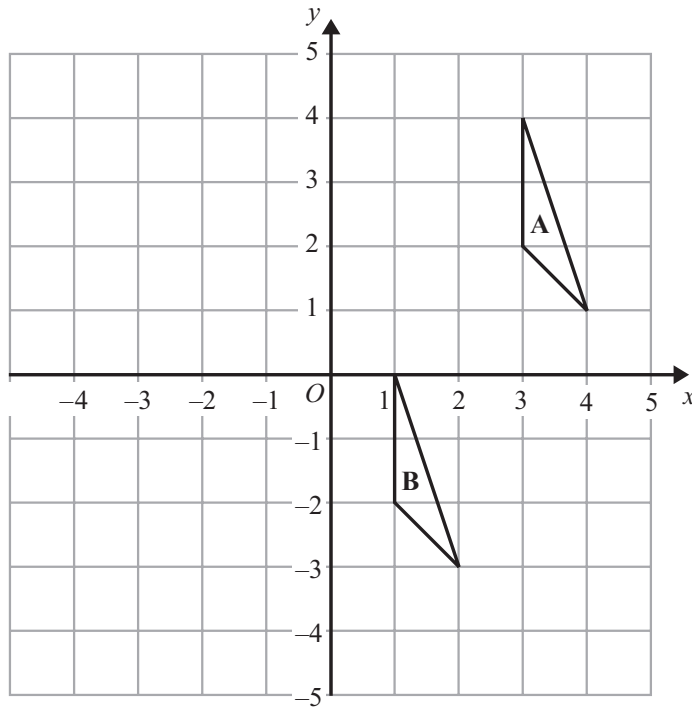
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.....
(Total for question 4 is 2 marks)

5

Leave blank



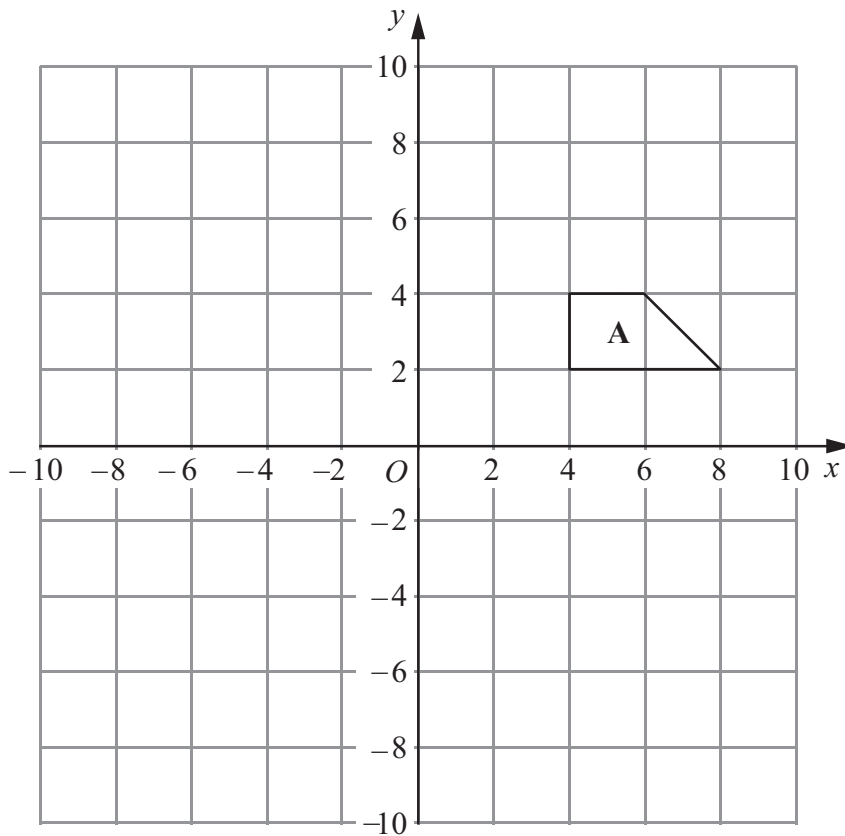
Describe fully the single transformation that maps triangle **A** onto triangle **B**.

.....

.....

(Total for question 5 is 2 marks)

6

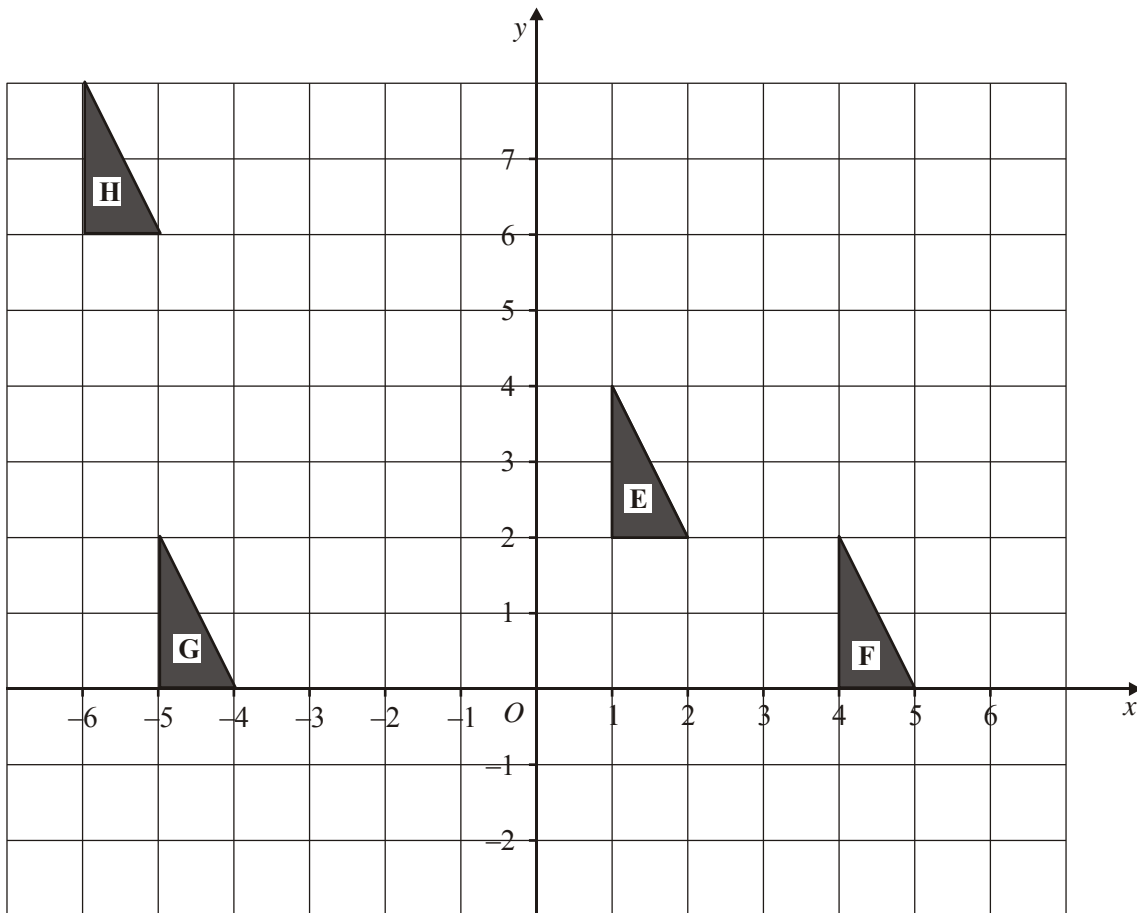


Translate shape **A** by $\begin{pmatrix} -8 \\ -2 \end{pmatrix}$

Label the new shape **B**

(Total for question 6 is 2 marks)

7

Leave
blank

(a) Write down the translation vector that would take E to F.

$$\begin{pmatrix} \dots\dots \\ \dots\dots \end{pmatrix}$$

(b) Write down the translation vector that would take G to F.

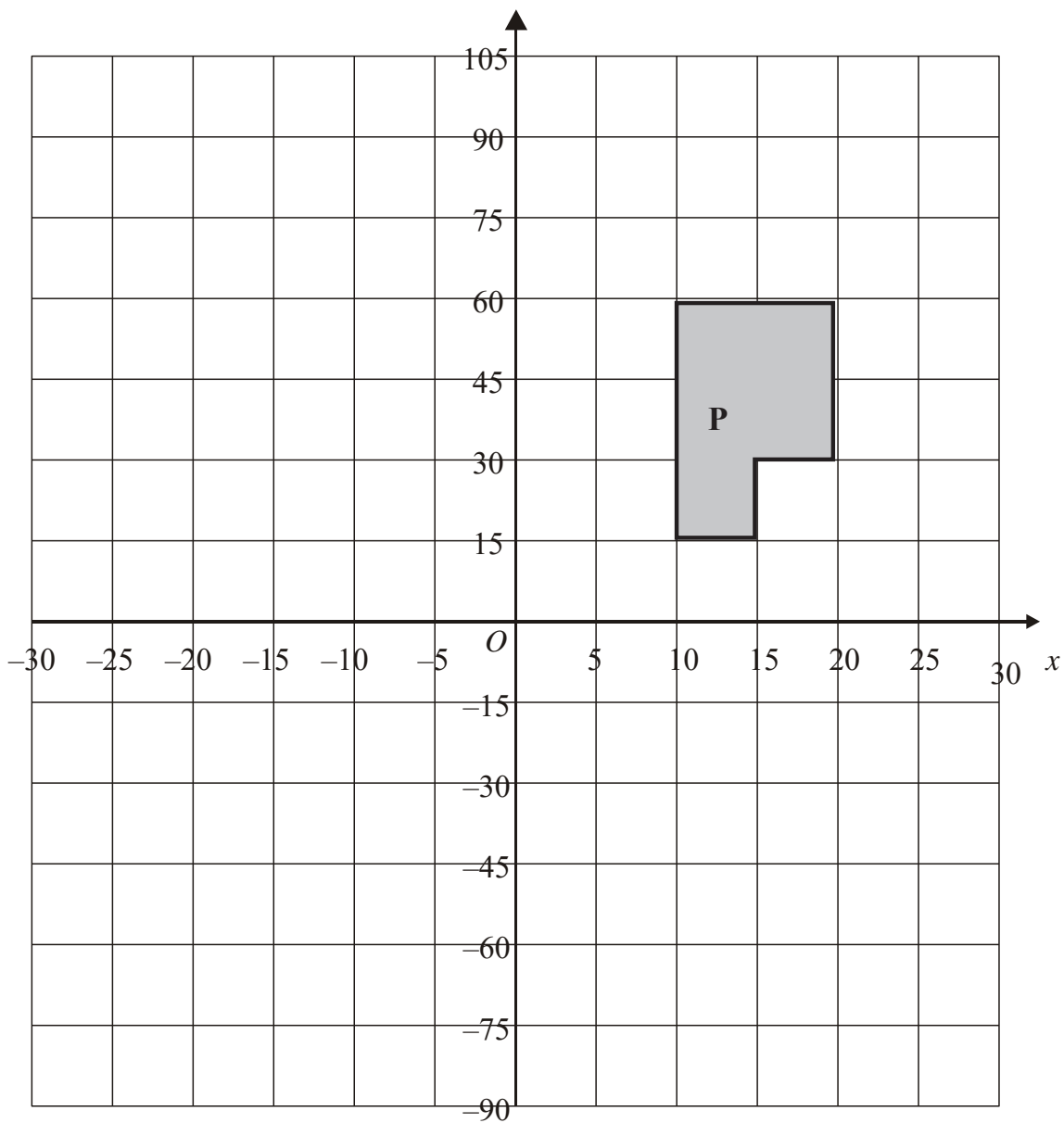
$$\begin{pmatrix} \dots\dots \\ \dots\dots \end{pmatrix}$$

(a) Write down the translation vector that would take E to H.

$$\begin{pmatrix} \dots\dots \\ \dots\dots \end{pmatrix}$$

(Total for question 7 is 3 marks)

8



Translate shape **P** by $\begin{pmatrix} -25 \\ 30 \end{pmatrix}$

Label the new shape **Q**.

(Total for question 8 is 2 marks)

