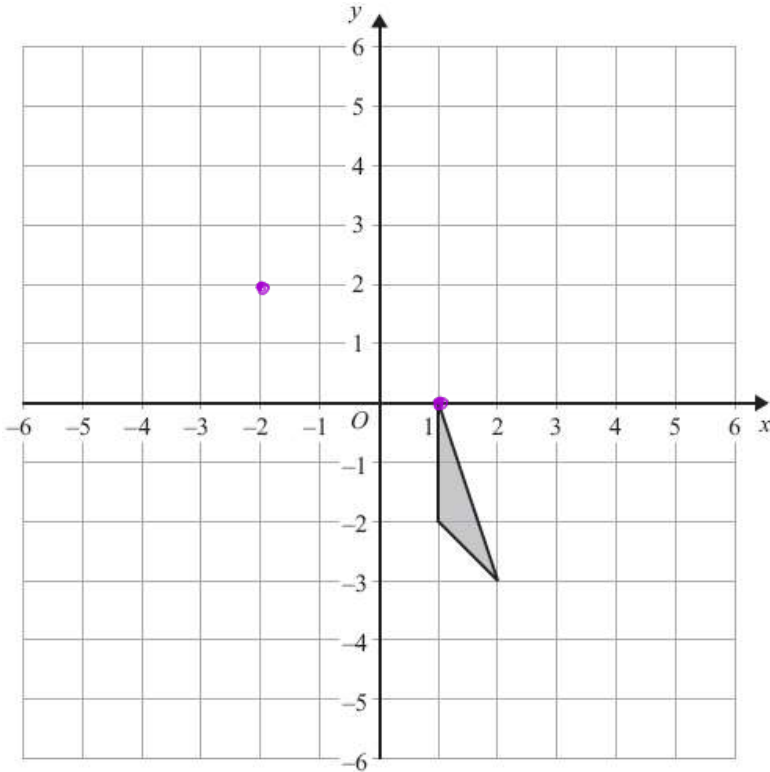


GCSE QUESTIONS WITH CLUES

Q1. NON-CALCULATOR

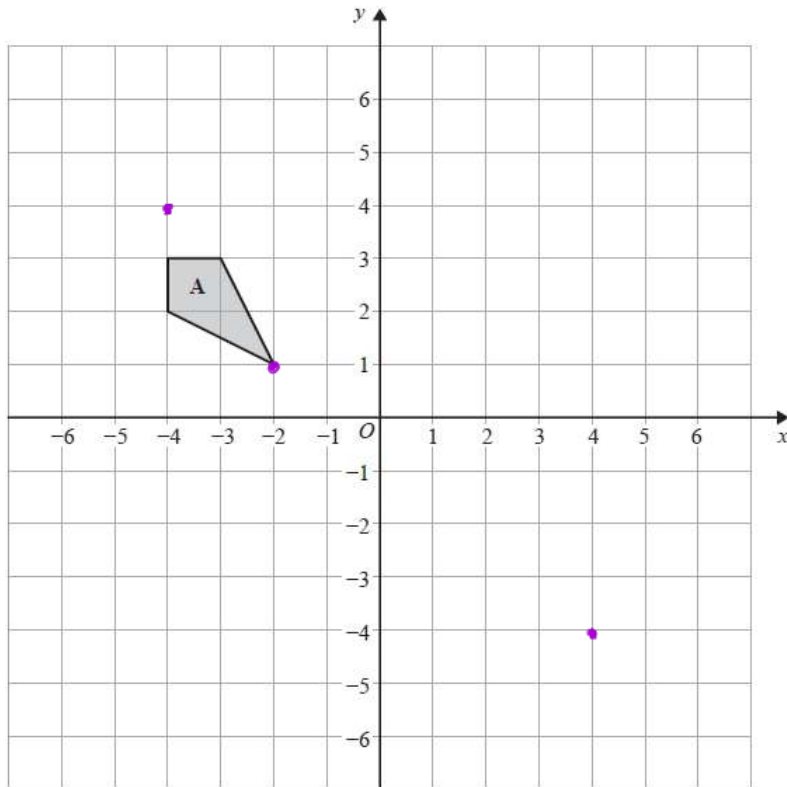
$$\begin{pmatrix} \rightarrow \\ \uparrow \end{pmatrix}$$

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



(Total for Question is 2 marks)

Q2. NON-CALCULATOR



(a) On the grid, translate shape **A** by the vector $\begin{pmatrix} 6 \\ -5 \end{pmatrix}$ $\begin{pmatrix} \rightarrow \\ \uparrow \end{pmatrix}$

Label the new shape **B**.

(1)

(b) On the grid, translate shape **B** by the vector $\begin{pmatrix} -8 \\ 8 \end{pmatrix}$ $\begin{pmatrix} \rightarrow \\ \uparrow \end{pmatrix}$

Label the new shape **C**.

(1)

(c) Write down the column vector for the translation that maps shape **A** onto shape **C**.

2 left
3 up

(1)

(Total for question = 3 marks)

Q3. NON-CALCULATOR

Shape **A** is translated by the vector $\begin{pmatrix} 4 \\ -7 \end{pmatrix}$ to make Shape **B**.

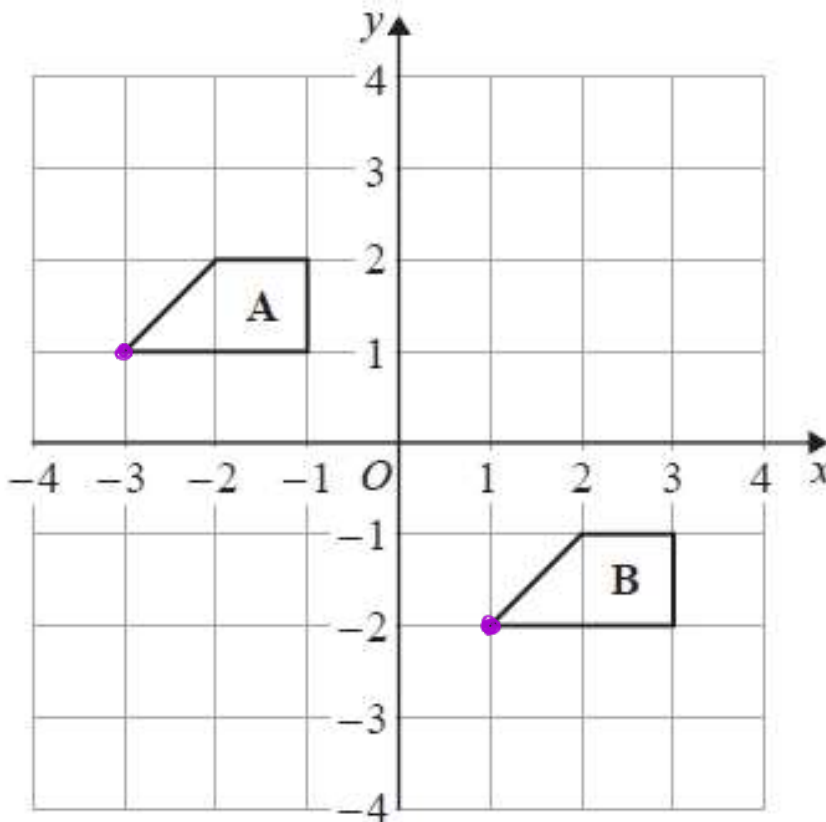
$$\begin{pmatrix} 4 \\ -7 \end{pmatrix} + \begin{pmatrix} -3 \\ -2 \end{pmatrix} =$$

Shape **B** is then translated by the vector $\begin{pmatrix} -3 \\ -2 \end{pmatrix}$ to make Shape **C**.

Describe the single transformation that maps Shape **A** onto Shape **C**.

.....
(Total for question = 2 marks)

Q4. NON-CALCULATOR

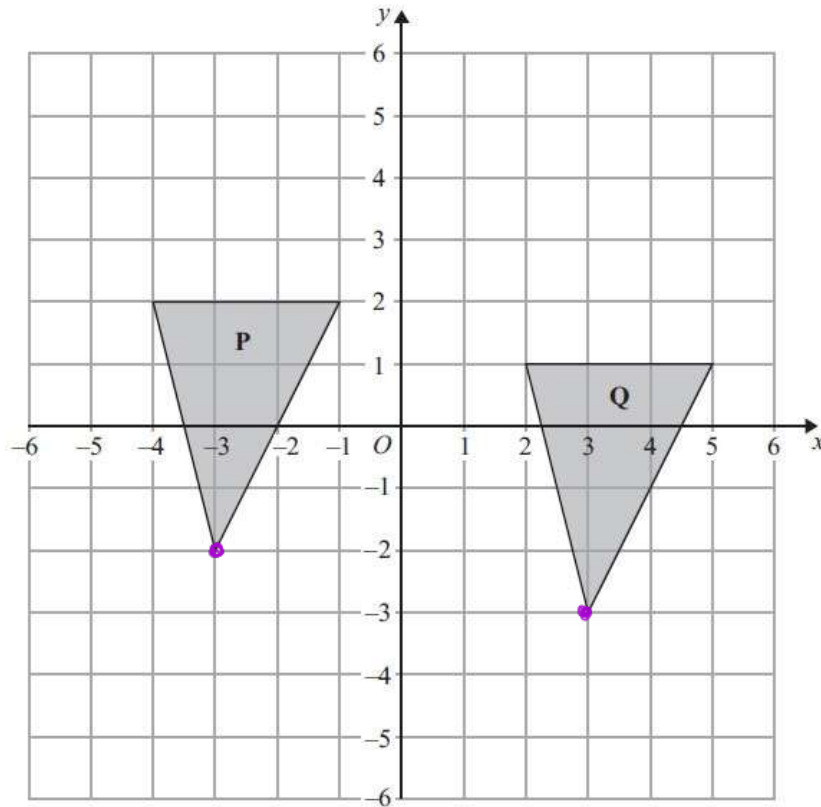


4 right
3 down

Describe the single transformation that maps shape **A** onto shape **B**.

.....
.....
(Total for question = 2 marks)

Q5. NON-CALCULATOR

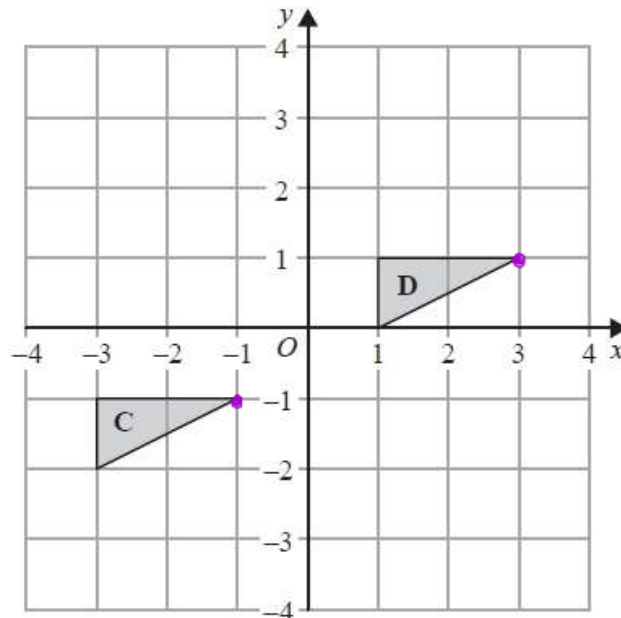


Describe fully the single transformation that maps triangle **P** onto triangle **Q**.

.....

(Total for Question is 2 marks)

Q6. NON-CALCULATOR

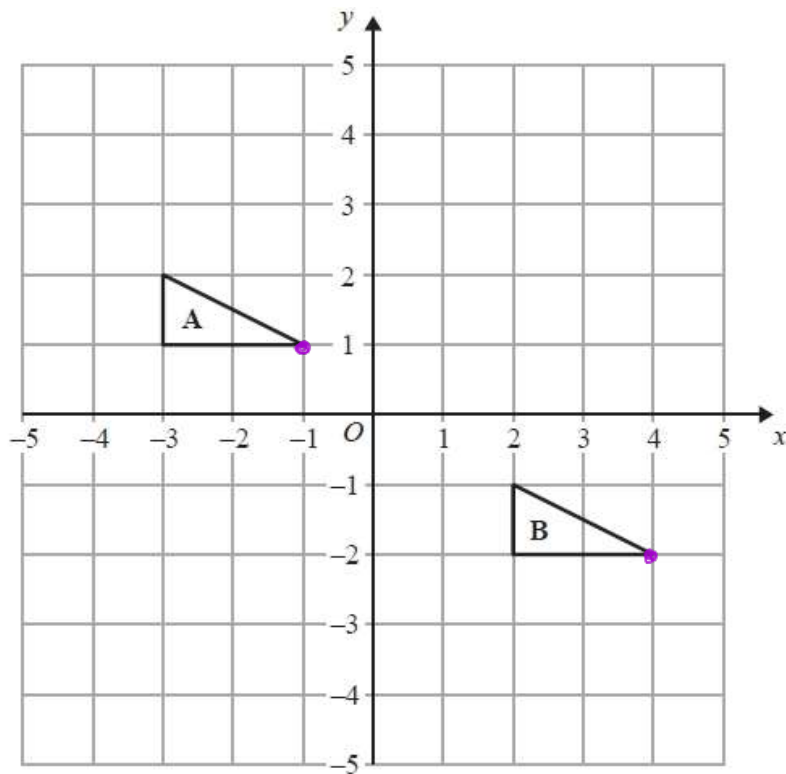


Describe fully the single transformation that maps triangle **C** onto triangle **D**.

.....

(Total for question = 2 marks)

Q7. NON-CALCULATOR



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

.....

.....

(Total for Question is 2 marks)