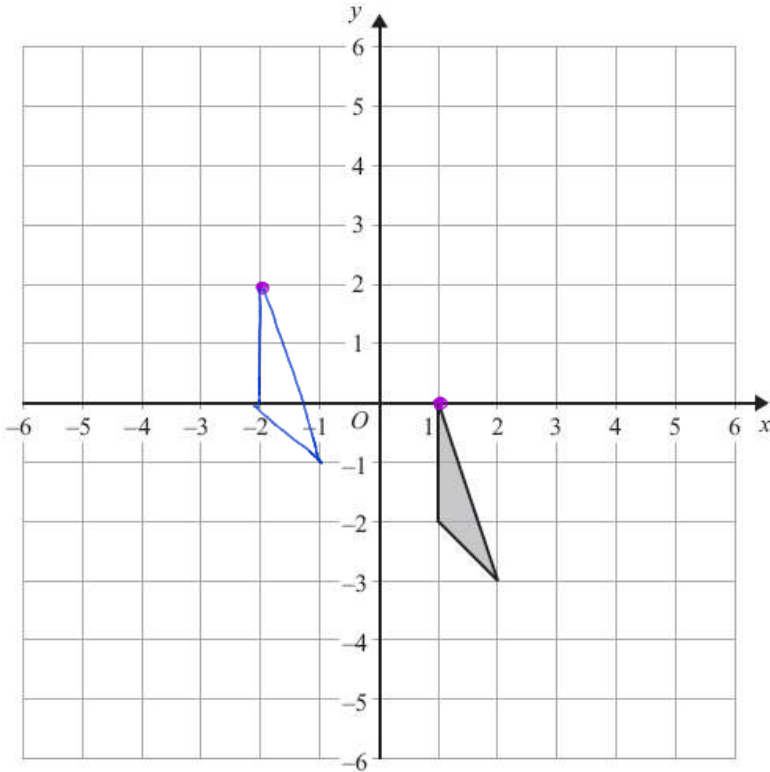


# FULL MODEL ANSWERS

**Q1. NON-CALCULATOR**

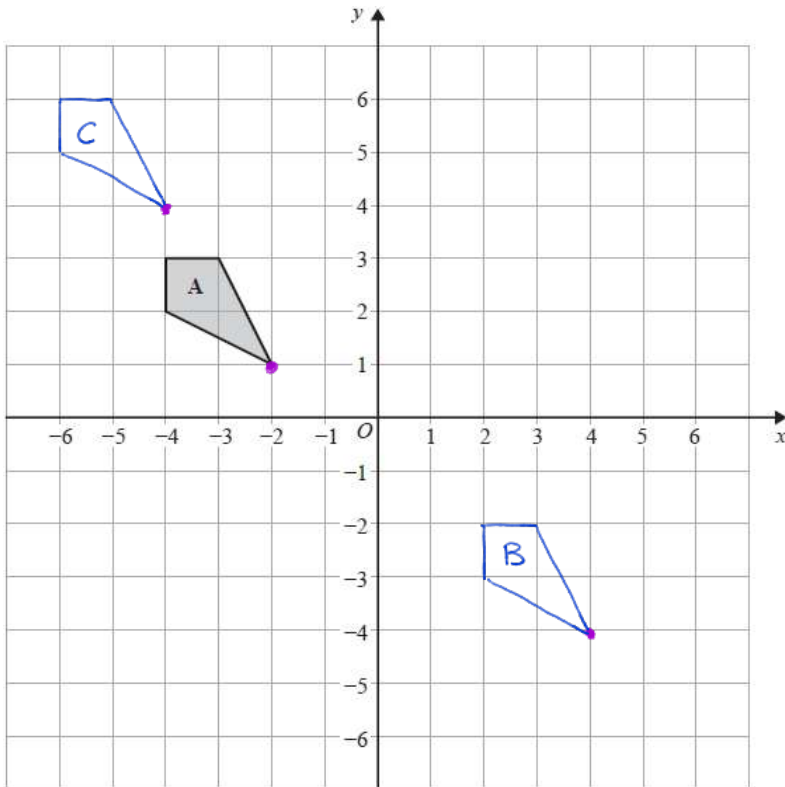
$$\begin{pmatrix} \rightarrow \\ \uparrow \end{pmatrix}$$

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

$$\begin{pmatrix} -2 \\ 3 \end{pmatrix}$$

(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**.

$$\begin{pmatrix} 4 \\ -7 \end{pmatrix} + \begin{pmatrix} -3 \\ -2 \end{pmatrix} = \begin{pmatrix} 1 \\ -9 \end{pmatrix}$$

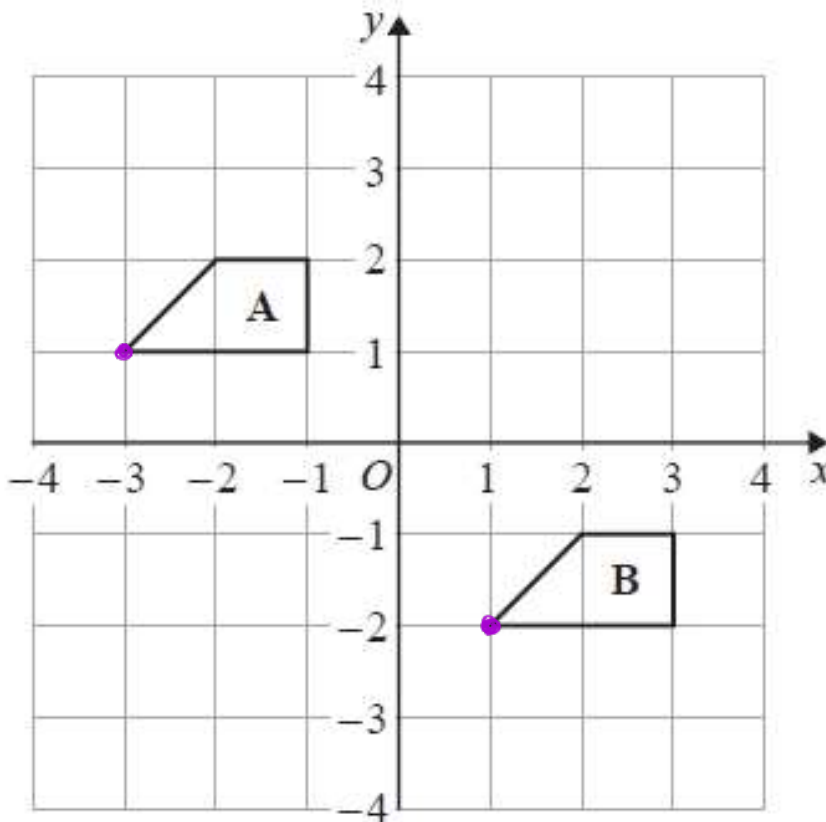
Shape **B** is then translated by the vector  $\begin{pmatrix} -3 \\ -2 \end{pmatrix}$  to make Shape **C**.

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

$$\begin{pmatrix} 1 \\ -9 \end{pmatrix}$$

(Total for question = 2 marks)

**Q4. NON-CALCULATOR**



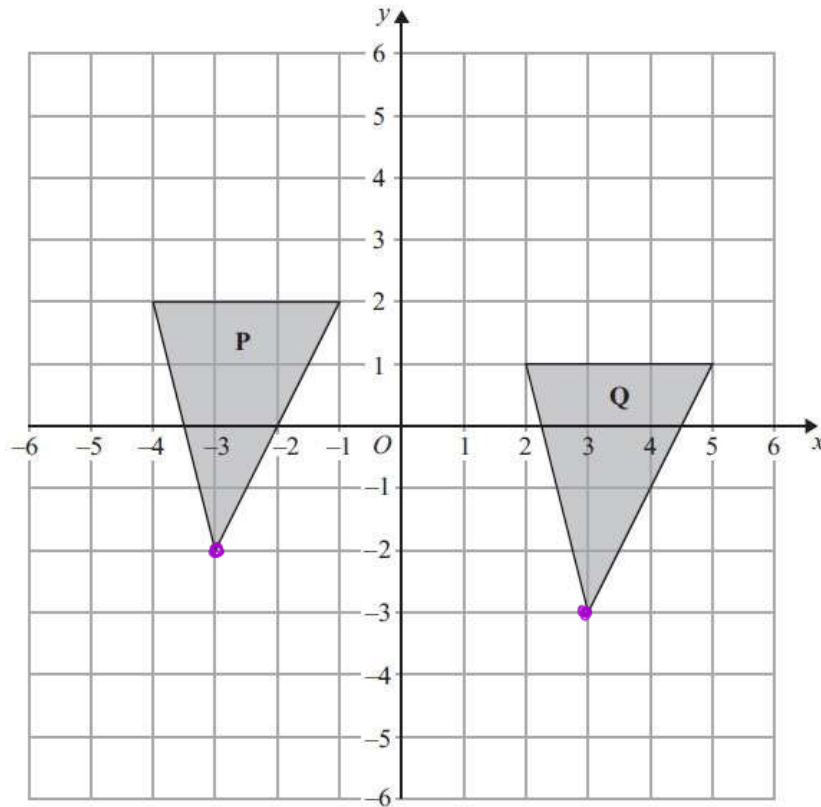
4 right  
3 down

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

Translation  $\begin{pmatrix} 4 \\ -3 \end{pmatrix}$

(Total for question = 2 marks)

**Q5. NON-CALCULATOR**

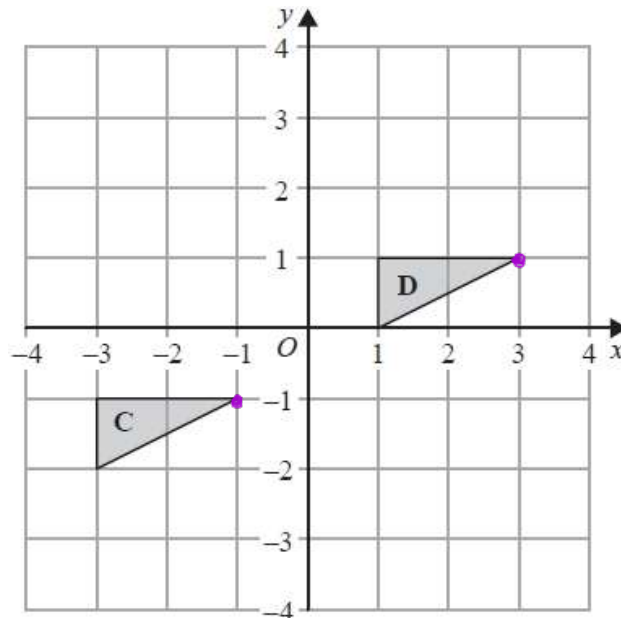


Describe fully the single transformation that maps triangle **P** onto triangle **Q**.

.....  
 Translation  $\begin{pmatrix} 6 \\ -1 \end{pmatrix}$   
 .....

(Total for Question is 2 marks)

**Q6. NON-CALCULATOR**

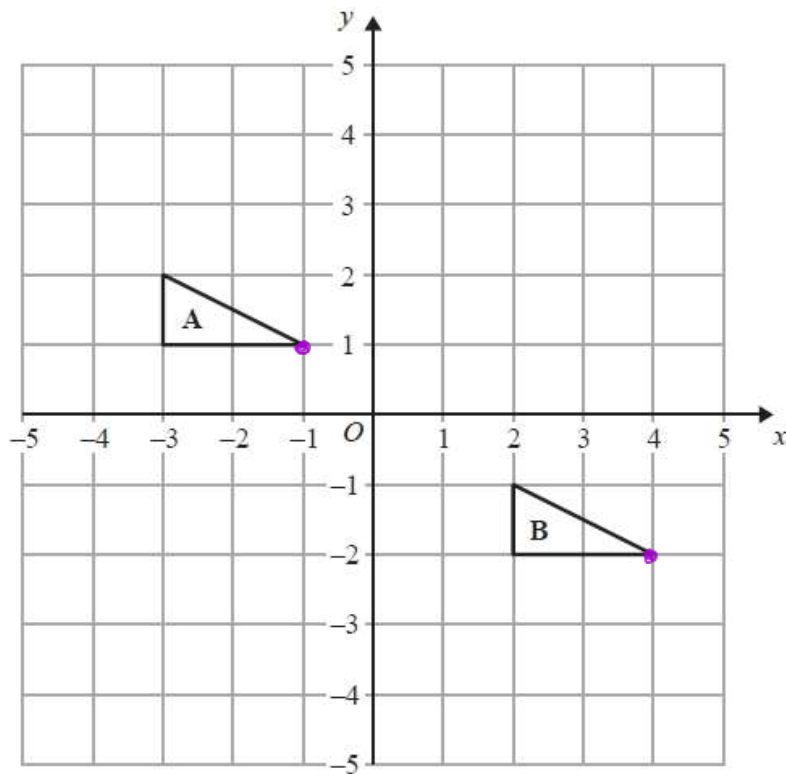


Describe fully the single transformation that maps triangle **C** onto triangle **D**.

.....  
 Translation  $\begin{pmatrix} 4 \\ 2 \end{pmatrix}$   
 .....

(Total for question = 2 marks)

Q7. NON-CALCULATOR



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

Translation  $\begin{pmatrix} 5 \\ -3 \end{pmatrix}$

(Total for Question is 2 marks)