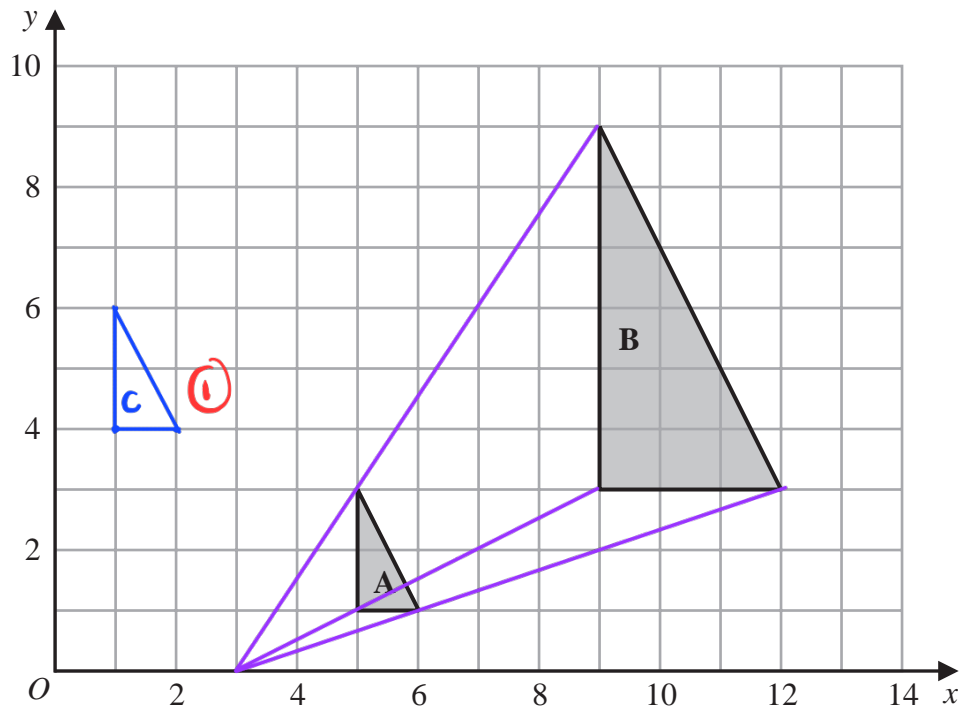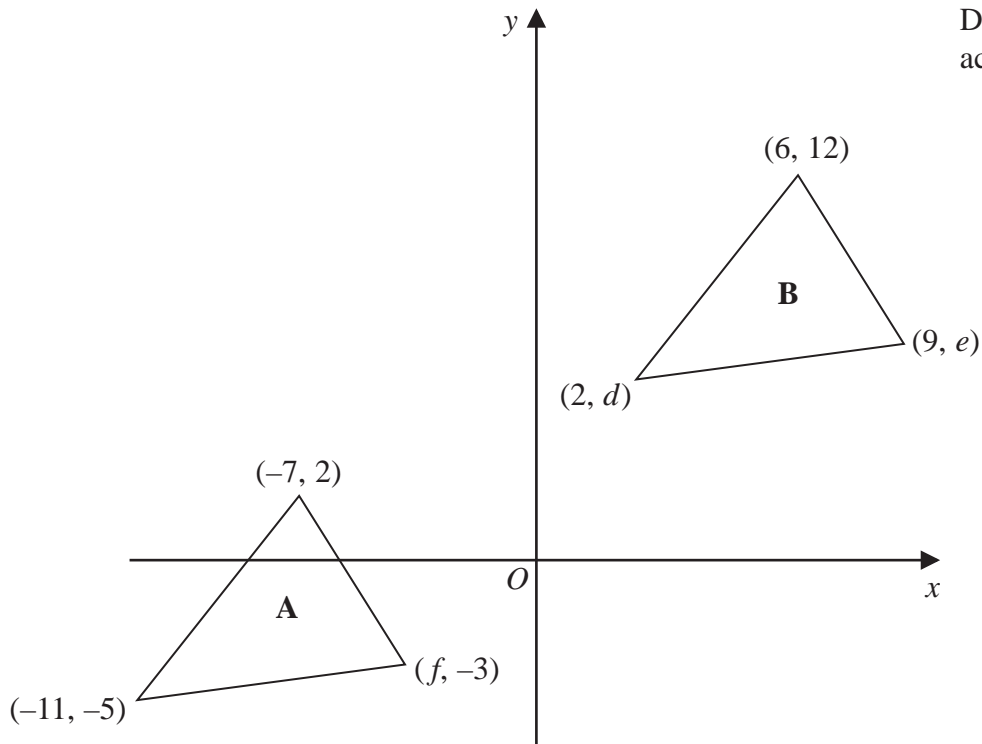**1**

(b) On the grid above, translate triangle **A** by the vector $\begin{pmatrix} -4 \\ 3 \end{pmatrix}$ − four positions to the left
− three positions upward

Label your triangle **C**

(1)

(Total for Question 1 is 1 marks)

2 The diagram shows a sketch of triangle **A** and triangle **B** on a coordinate grid.

Diagram **NOT** accurately drawn

(a) Given that triangle **A** has been translated to give triangle **B**, work out the value of d, the value of e and the value of f

$$\text{translation} = \begin{pmatrix} 6-(-7) \\ 12-2 \end{pmatrix}$$

$$= \begin{pmatrix} 13 \\ 10 \end{pmatrix} \quad \text{①}$$

$$\text{point } (-11,-5) : \begin{pmatrix} -11+13 \\ -5+10 \end{pmatrix}$$

$$= \begin{pmatrix} 2 \\ 5 \end{pmatrix} \quad \therefore d = 5$$

$$\text{①}$$

$$\text{point } (f,-3) : \begin{pmatrix} f+13 \\ -3+10 \end{pmatrix} = \begin{pmatrix} 9 \\ e \end{pmatrix}$$

$$f = 9-13 = -4$$

$$e = -3+10 = 7$$

$d =$ ....5........ ①

$e =$ ....7........

$f =$ ....-4........

(3)

(Total for Question 2 is 3 marks)