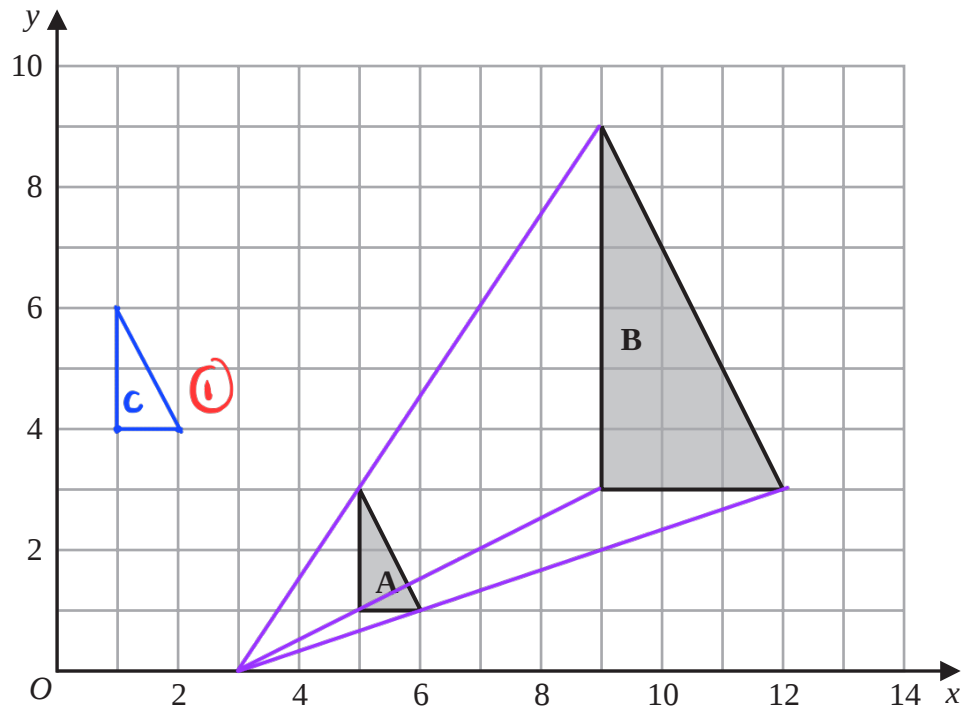


1

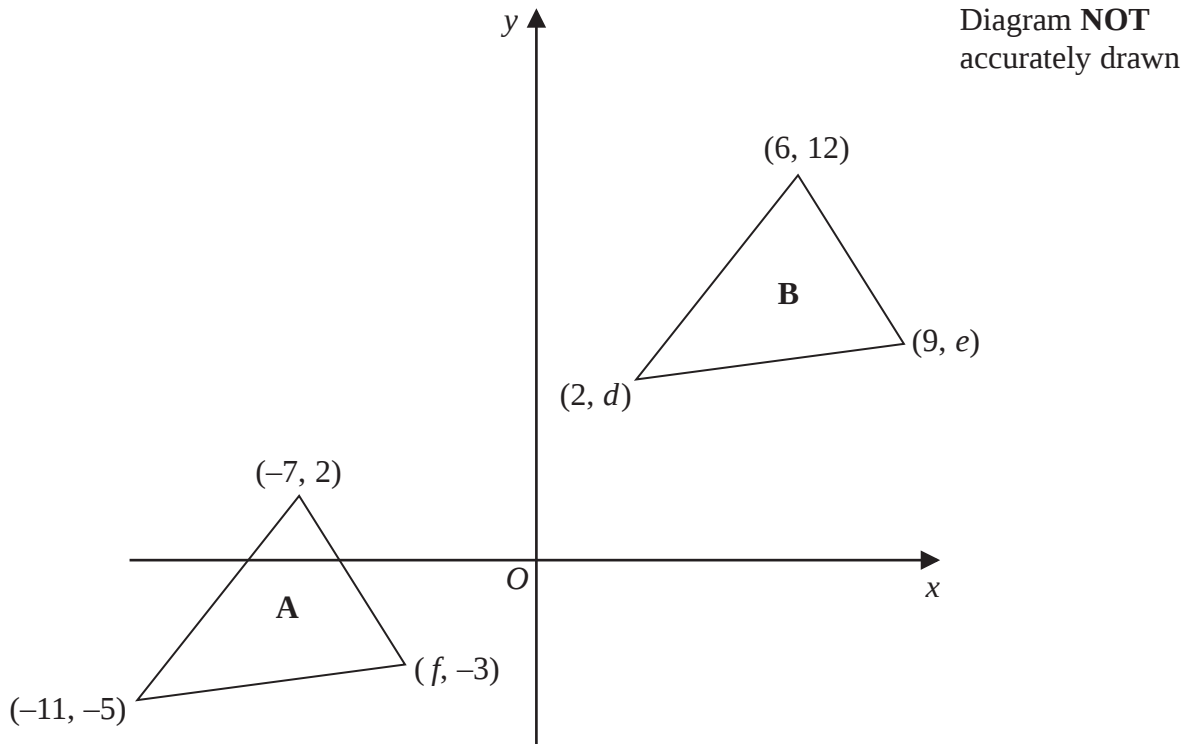
- (b) On the grid above, translate triangle A by the vector $\begin{pmatrix} -4 \\ 3 \end{pmatrix}$ - four positions to the left
- three positions upward

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.



- (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

$$\begin{aligned}\text{translation} &= \begin{pmatrix} 6 - (-7) \\ 12 - 2 \end{pmatrix} \\ &= \begin{pmatrix} 13 \\ 10 \end{pmatrix} \quad \textcircled{1}\end{aligned}$$

$$\begin{aligned}\text{point } (-11, -5) &: \begin{pmatrix} -11 + 13 \\ -5 + 10 \end{pmatrix} \\ &= \begin{pmatrix} 2 \\ 5 \end{pmatrix} \quad \therefore d = 5 \quad \textcircled{1}\end{aligned}$$

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

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

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

$$\begin{aligned}d &= 5 \quad \textcircled{1} \\ e &= 7 \\ f &= -4 \\ &\quad (3)\end{aligned}$$

(Total for Question 2 is 3 marks)