

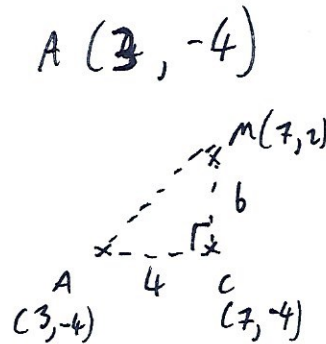


9th April

M is the midpoint of the line AB.
 The coordinates of the point M are (7, 2)
 The coordinates of the point B are (11, 8)
 The coordinates of the point C are (7, -4)

Find the area of triangle ACM.

$$\frac{1}{2} \times 4 \times 6 = 12$$



Expand and simplify fully

$$(1 - x)(x + 2)^2$$

$$(1 - x)(x^2 + 4x + 4)$$

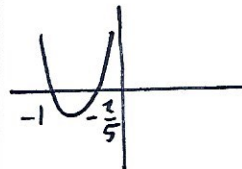
$$x^2 + 4x + 4 - x^3 - 4x^2 - 4x$$

$$-x^3 - 3x^2 + 4$$

Solve the inequality

$$5x^2 + 7x + 2 > 0$$

$$(5x + 2)(x + 1)$$



$$x < -1 \quad \text{or} \quad x > -\frac{2}{5}$$

$$\mathbf{A} = \begin{pmatrix} -3 & 4 \\ -1 & 2 \end{pmatrix} \quad \mathbf{B} = \begin{pmatrix} -1 & 5 \\ 7 & 4 \end{pmatrix}$$

$$\mathbf{C} = \begin{pmatrix} -3 \\ 2 \end{pmatrix}$$

Work out the matrix **ABC**

$$\begin{pmatrix} -1 & 5 \\ 7 & 4 \end{pmatrix} \begin{pmatrix} -3 \\ 2 \end{pmatrix} = \begin{pmatrix} 13 \\ -13 \end{pmatrix}$$

$$\begin{pmatrix} -3 & 4 \\ -1 & 2 \end{pmatrix} \begin{pmatrix} 13 \\ -13 \end{pmatrix} = \begin{pmatrix} -91 \\ -39 \end{pmatrix}$$