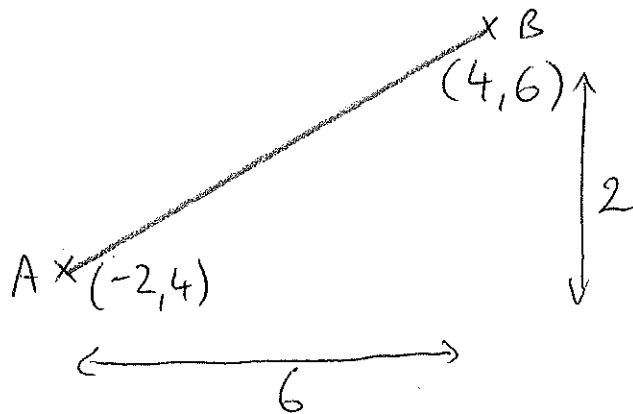


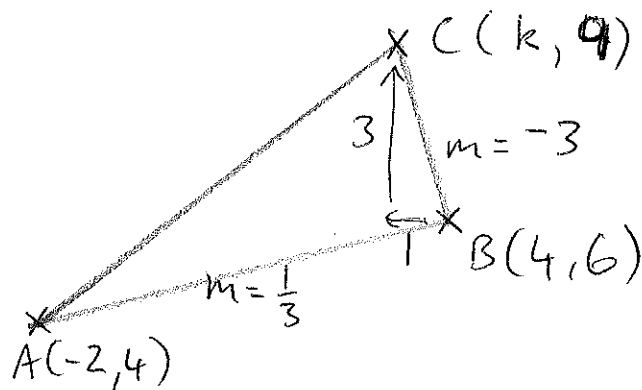
Pure 1 Ch5 Mixed Ex 5 Q12 (SBD)

a)



$$m = \frac{2}{6} = \frac{1}{3}$$

b)



$$\therefore k = 4 - 1 = 3$$

c)  $y = mx + c$

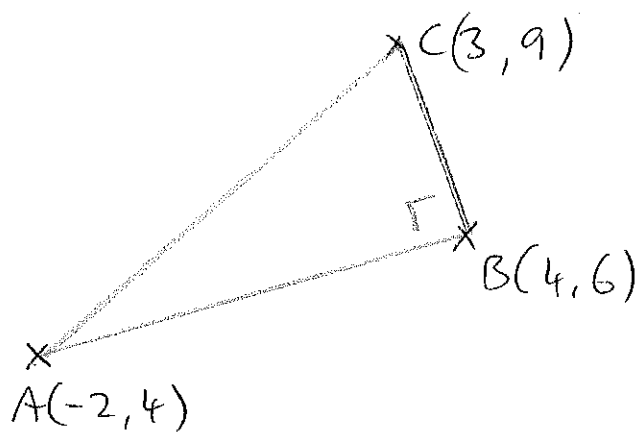
$$6 = -3 \times 4 + c$$

$$\therefore c = 18$$

$$\text{so } y = -3x + 18$$

$$\text{so } 3x + y - 18 = 0$$

d)



$$\begin{aligned} \text{so } |AB| &= \sqrt{(4-(-2))^2 + (6-4)^2} \\ &= \sqrt{40} \end{aligned}$$

$$\begin{aligned} |BC| &= \sqrt{(4-3)^2 + (6-9)^2} \\ &= \sqrt{10} \end{aligned}$$

so area of triangle is  $\frac{1}{2}$  base  $\times$  height

$$= \frac{1}{2} \sqrt{10} \times \sqrt{40}$$

$$= \underline{\underline{10}}$$