

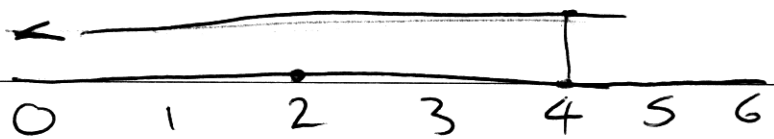
$$4a) |x-1| \geq 3$$

$$x+1 \geq 3$$

$$x \geq 2$$

$$\text{or } x \leq -4$$

$$2 \leq x \leq 4$$

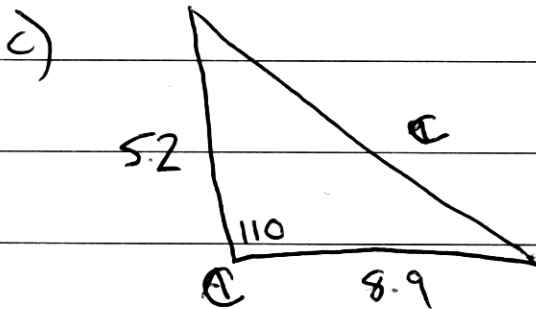


$$b) \cos \theta - \frac{2}{5} = 0$$

$$\cos \theta = \frac{2}{5}$$

$$\theta = 66^{\circ}25' \text{ and } 246^{\circ}25'$$

$$\doteq 66^{\circ} \text{ and } 246^{\circ}$$



$$c^2 = a^2 + b^2 - 2ab \cos \theta$$

$$c^2 = 8.9^2 + 5.2^2 - 2 \times 8.9 \times 5.2 \times \cos 110$$

$$= 79.21 + 27.04$$

$$c^2 = \sqrt{106.25}$$

$$c = 11.74 \text{ cm}$$

$$\text{Area} = \frac{1}{2} \times 8.9 \times 5.2 \times \sin 110^{\circ}$$

$$= 24.499 \text{ cm}^2$$

$$\doteq 24.5 \text{ cm}^2$$



d)

$$\text{ii) } y = 6x - x^2$$

$$y = \cancel{y} - 2x$$

$$2x = 6x - x^2$$

$$\cancel{y} = 2x(3-x)$$

$$x(4x-x)$$