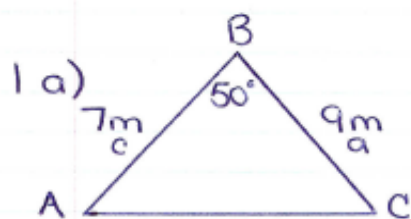
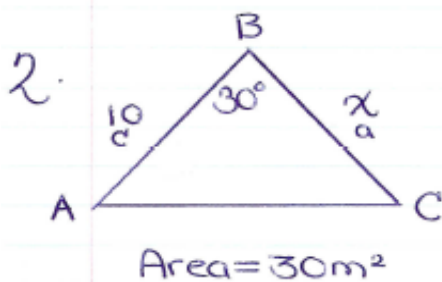


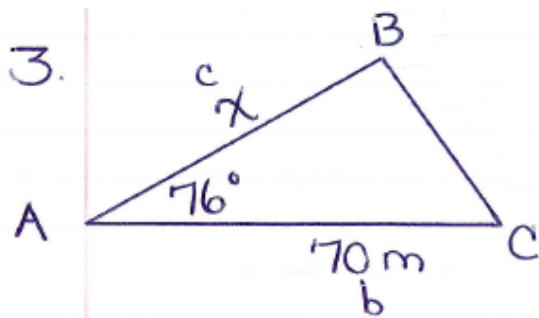
SOLUTIONS => AREA WORKSHEET # 2



$$\begin{aligned} \text{b) } A &= \frac{1}{2} ac \sin B \\ &= \frac{1}{2} (9)(7) \sin 50^\circ \\ &= \frac{1}{2} (63)(0.7660) \\ &= \frac{1}{2} (48.2608) \\ &= 24.1 m^2 \end{aligned}$$



$$\begin{aligned} A &= \frac{1}{2} ac \sin B \\ 30 &= \frac{1}{2} (x)(10) \sin 30^\circ \\ 30 &= \frac{1}{2} (x)(10)(0.5000) \\ 30 &= \frac{1}{2} (x)(5) \\ \frac{30}{2.5} &= \frac{2.5x}{2.5} \\ 12m &= x \end{aligned}$$



$$\text{Area} = 1700 \text{ m}^2$$

$$A = \frac{1}{2} bc \sin A$$

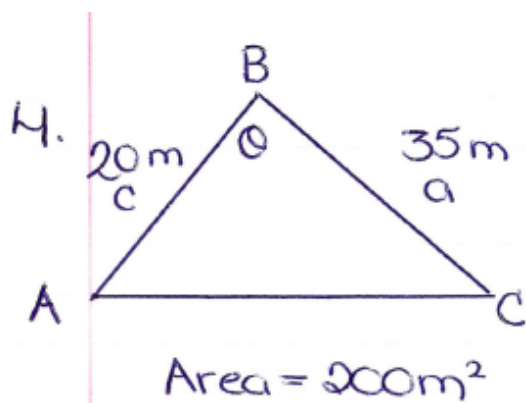
$$1700 = \frac{1}{2} (70)(x) \sin 76^\circ$$

$$1700 = \frac{1}{2} (70)(x)(0.9703)$$

$$1700 = \frac{1}{2} (x)(67.9210)$$

$$\frac{1700}{33.9605} = \frac{33.9605 x}{33.9605}$$

$$50.1 \text{ m} = x$$



$$A = \frac{1}{2} ac \sin B$$

$$200 = \frac{1}{2} (35)(20) \sin \theta$$

$$200 = \frac{1}{2} (700) \sin \theta$$

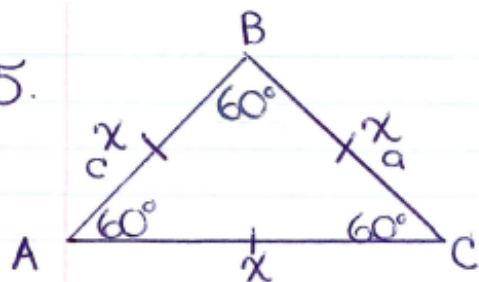
$$\frac{200}{350} = \frac{350 \sin \theta}{350}$$

$$0.5714 = \sin \theta$$

$$\sin^{-1}(0.5714) = \theta$$

$$35^\circ = \theta$$

5.



$$\text{Area} = 271 \text{ cm}^2$$

Equilateral Triangle

↳ All sides equal

↳ All angles 60° .

$$A = \frac{1}{2} ac \sin B$$

$$271 = \frac{1}{2} (x)(x) \sin 60^\circ$$

$$271 = \frac{1}{2} x^2 (0.8660)$$

$$271 = 0.4330 x^2$$

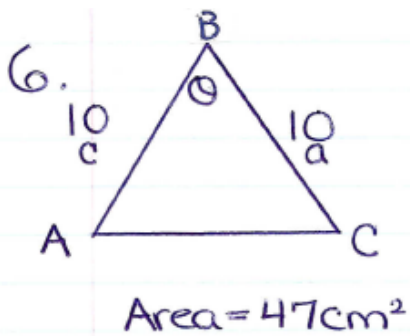
$$\frac{271}{0.4330} = \frac{0.4330 x^2}{0.4330}$$

$$625.8477 = x^2$$

$$\sqrt{625.8477} = x$$

$$25 \text{ cm} = x$$

The sides are 25 cm long.



Isosceles Triangle

↳ 2 equal sides!

$$A = \frac{1}{2}ac \sin B$$

$$47 = \frac{1}{2}(10)(10)\sin \theta$$

$$47 = \frac{1}{2}(100)\sin \theta$$

$$\frac{47}{50} = \frac{50 \sin \theta}{50}$$

$$0.9400 = \sin \theta$$

$$\sin^{-1}(0.9400) = \theta$$

$$70^\circ = \theta$$