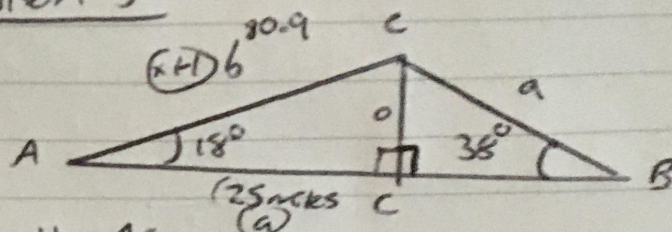


Question 3

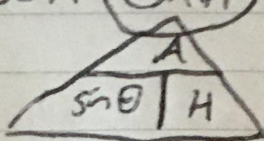
e)

Find:

- i) length AC
- ii) length BC



i) SOH (CAH) TOA



$$\sin \theta = \frac{A}{H}$$

$$H = \frac{A}{\sin \theta}$$

$$H = \frac{20}{\sin(18)}$$

$$H = \cancel{64.7} \text{ miles}$$

$$\text{ii) } \frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

$$\frac{CB}{\sin 25} = \frac{64.7}{\sin 38}$$

$$BC = \frac{64.7 \times \sin(25)}{\sin(38)}$$

$$BC = 44.4 \text{ miles}$$