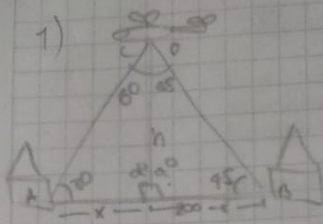


LUKIS



$$\frac{x}{\sin(60)} = \frac{h}{\sin(30)}$$

$$x = \frac{h \times \sin(60)}{\sin(30)}$$

$$x = 1.73h$$

$$200 - h = 1.73h$$

$$200 = 1.73h + h$$

$$200 = 2.73h$$

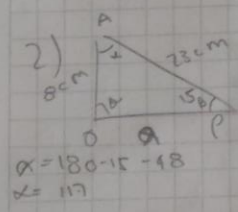
$$\frac{200-x}{\sin(45)} = \frac{h}{\sin(45)}$$

$$200-x = \frac{h \sin(45)}{\sin(45)}$$

$$x = 200 - h$$

$$h = \frac{200}{2.73}$$

$$h = 73.26 \text{ m}$$



$$\frac{\sin(15)}{8 \text{ cm}} = \frac{\sin(\theta)}{23 \text{ cm}}$$

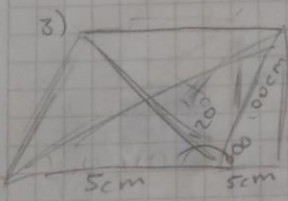
$$\theta = \text{Arsen}\left(\frac{23 \sin(15)}{8}\right)$$

$$\theta = 48^\circ$$

$$\frac{a}{\sin(117)} = \frac{8}{\sin(15)}$$

$$a = \frac{8 \times \sin(117)}{\sin(15)}$$

$$a = 27.54$$



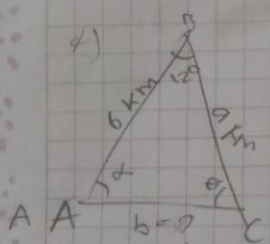
$$c = 5^2 + 10^2 - 2 \cdot 5 \cdot 10 \cdot \cos(120)$$

$$c = 25 + 100 - 100(-0.5)$$

$$c = 125 - (-50)$$

$$c = 125 + 50$$

$$c = \sqrt{175} = 13.23$$



$$AB = 6 \text{ km} \quad BC = 9 \text{ km}$$

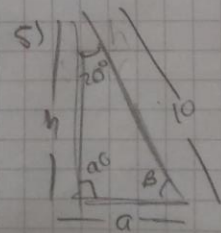
$$AC^2 = AB^2 + BC^2 - 2 \cdot AB \cdot BC \cdot \cos(120)$$

$$AC^2 = 6^2 + 9^2 - 2 \cdot 6 \cdot 9 \cdot \cos(120)$$

$$AC^2 = 36 + 81 - 108(-0.5)$$

$$AC^2 = 117 - (-54)$$

$$AC^2 = 171 = \sqrt{171} = 13.07$$



$$\frac{h}{\sin(70)} = \frac{10}{\sin(90)}$$

$$h = \frac{10 \times \sin(70)}{\sin(90)}$$

$$h = \frac{9.39}{1} = 9.39$$

$$\beta = 180 - 90 - 70$$

$$\beta = 20$$