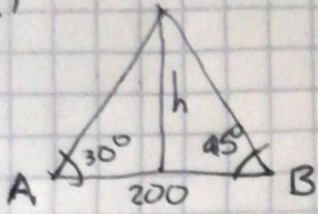


Examen 3 periodo matemáticas

1)



$$\frac{x}{\text{Sen}(60^\circ)} = \frac{h}{\text{Sen}(30^\circ)}$$

$$x = \frac{h \cdot \text{Sen}(60^\circ)}{\text{Sen}(30^\circ)}$$

$$x = 1,73h$$

$$200 - h = 1,73h$$

$$200 = 2,73h$$

$$h = \frac{200}{2,73}$$

$$h = 73,26$$

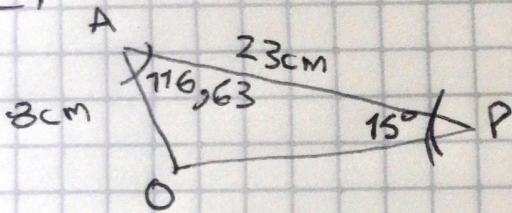
$$\frac{200-x}{\text{Sen}(45^\circ)} = \frac{h}{\text{Sen}(45^\circ)}$$

$$200-x = \frac{h \cdot \text{Sen}(45^\circ)}{\text{Sen}(45^\circ)}$$

$$200-x = h$$

$$x = 200-h$$

2)



$$A = 180 - 15 - 48,37$$

$$A = 116,63$$

$$\frac{8}{\text{Sen}(15^\circ)} = \frac{23}{\text{Sen}(\theta)}$$

$$\text{Sen}(\theta) = 6,7474$$

$$\text{Sen}(\theta) = 48,37$$

$$\frac{8}{0,25} = \frac{23}{\text{Sen}(\theta)}$$

$$30,77 = \frac{23}{\text{Sen}(\theta)}$$

$$\text{Sen}(\theta) = \frac{23}{30,77}$$

$$\frac{a}{\text{sen}(116,65)} = \frac{23}{\text{sen}(48,37)} = \frac{23}{\text{sen}(48,37)}$$

$$\frac{a}{\text{sen}(116,65)} = \frac{23}{\text{sen}(48,37)}$$

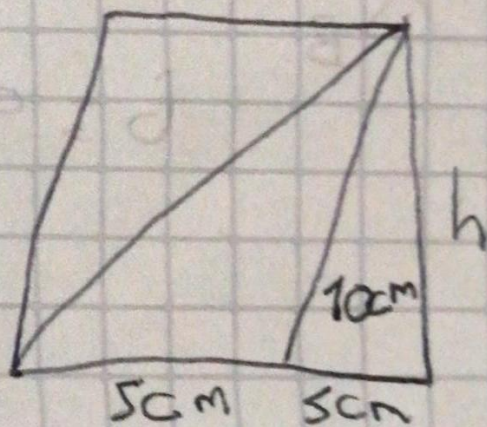
$$a = \frac{23 \cdot \text{sen}(116,63)}{\text{sen}(48,37)}$$

$$a = 27,54$$

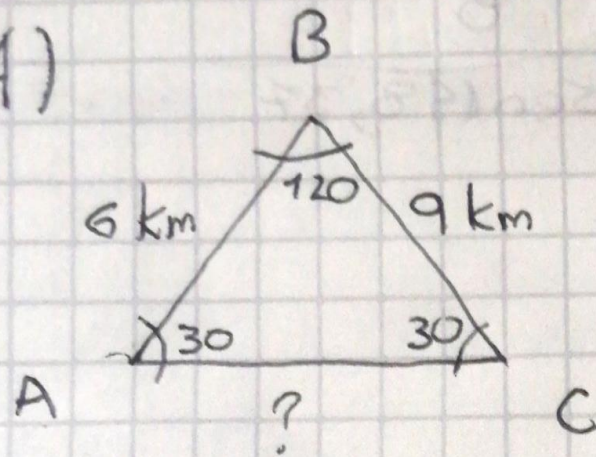
$$3) d = \sqrt{5^2 + 10^2 - 2 \cdot (5)(10) \cos(120^\circ)}$$

$$d = 13,23$$

$$h = 8,66$$



4)

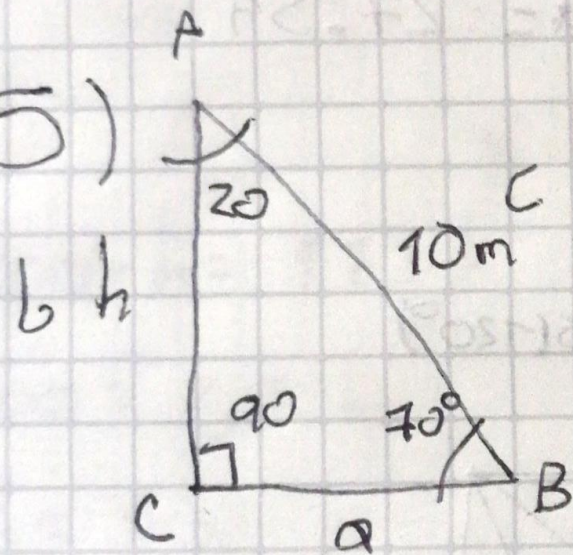


$$a^2 = 6^2 + 9^2 - 2(6)(9) \cos(120^\circ)$$

$$a = 36 + 81 - 108 \cos(120^\circ)$$

$$a = 13,08$$

5)



$$\frac{10 \text{ m}}{\sin(90^\circ)} = \frac{b}{\sin(70^\circ)}$$

$$b = \frac{10 \cdot \sin(70^\circ)}{\sin(90^\circ)}$$

$$b = 9,39$$