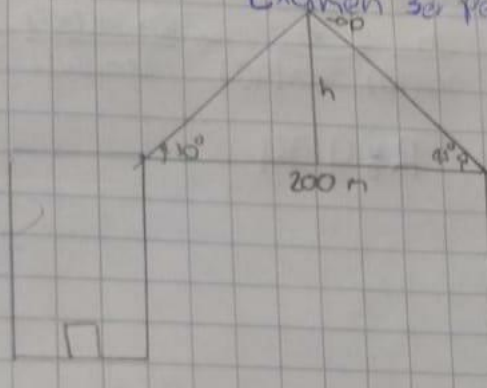


Examen 3er periodo

①



$$\frac{x}{\sin 45} = \frac{h}{\sin 30} \rightarrow 1.73h$$

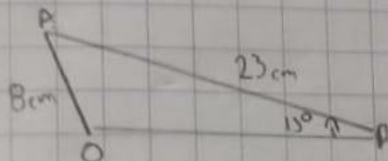
$$\frac{(200-x)}{\sin 45} = \frac{h}{\sin 30} = 200-h$$

$$200-h = 1.73h \rightarrow 200 = 1.73h$$

$$200 = 1.73h \rightarrow h = \frac{200}{1.73}$$

R: 73,2

②



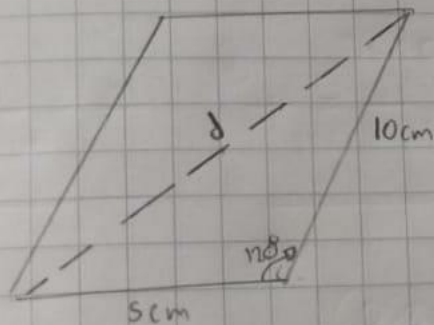
$$\frac{8}{\sin 15} = \frac{23}{\sin \theta} = \frac{\sin^{-1} \left(\frac{23 \times \sin(15)}{8} \right)}{8} = 48,8$$

$$48 + 15 = 64 + 117 = 180$$

$$\frac{8}{\sin(15)} = \frac{x}{\sin(117)} \rightarrow x = \frac{8 \times \sin(117)}{\sin(15)} = 27,5 \text{ cm}$$

R: 27,5

③

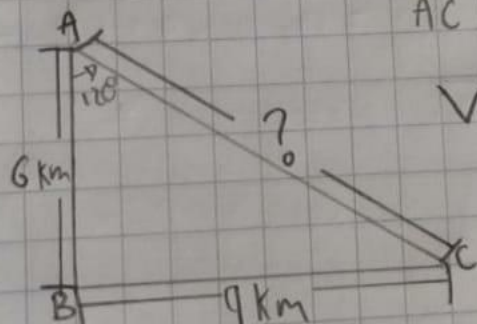


$$d = 5^2 + 10^2 - 2 \times 5 \times 10 \times \cos(120) = 175$$

$$\sqrt{175} = 13,22$$

R: 13,22

④

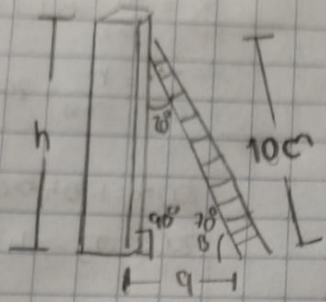


$$AC^2 = 6^2 + 9^2 - 2 \times 6 \times 9 \times \cos(120)$$

$$\sqrt{171} = 13,07$$

R: 13,07

5



$$\frac{h}{\sin(70^\circ)} = \frac{10}{\sin(40^\circ)} \rightarrow \frac{10 \cdot \sin(30^\circ)}{\sin(40^\circ)} = h \approx 9,39$$

R: 9,39