

Solucion Examen 2 Periodo

P = Punto donde se aplica el helicopero

A = Elevación 30°

B = Elevación 45°

N = Altura de Helicopero



$$\frac{X}{\text{sen } 60^\circ} = \frac{h}{\text{sen } 30^\circ}$$

$$X = \frac{h \cdot \text{sen } 60^\circ}{\text{sen } 30^\circ}$$

$$X = 1,73h$$

Igualando

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

$$200 = 2,73h$$

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

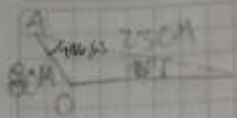
$$h = 73,26$$

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

$$200 - X = \frac{h \cdot \text{sen } 45^\circ}{\text{sen } 45^\circ}$$

$$200 - X = h$$

$$X = 200 - h$$



$$A = 180 - 80 - 101 = 19,37$$

$$A = 19,37$$

$$\frac{a}{\sin A} = \frac{c}{\sin C}$$

$$\frac{a}{0,26} = \frac{23}{\sin 101}$$

$$20,77 = \frac{a}{0,26}$$

$$\sin(101) = \frac{23}{20,77}$$

$$\sin(101) = 0,2474$$

$$\sin(101) = 48,37$$

$$\frac{a}{\sin a} = \frac{b}{\sin b} = \frac{c}{\sin C}$$

$$\frac{a}{\sin(19,37)} = \frac{23}{\sin(101,37)} = \frac{b}{\sin(101,37)}$$

$$\frac{a}{\sin(19,37)} = \frac{23}{\sin(101,37)}$$

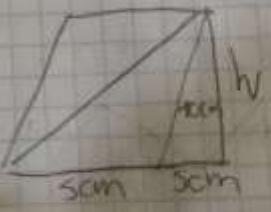
$$a = \frac{23 \cdot \sin(19,37)}{\sin(101,37)}$$

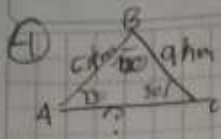
$$a = 27,54$$

$$3 = d = \sqrt{5^2 + 10^2 - 2 \cdot 5 \cdot 10 \cdot \cos 70^\circ}$$

$$d = 13,23$$

$$h = 8,60$$





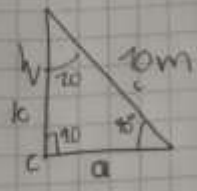
$$a^2 = b^2 + c^2 - 2 \cdot b \cdot c \cdot \cos(\alpha)$$

$$a^2 = 26^2 + 27^2 - 2 \cdot 26 \cdot 27 \cdot \cos(100^\circ)$$

$$a = 26^2 + 27^2 - 108 \cdot \cos(100^\circ)$$

$$\underline{a = 13,08}$$

⑤



$$\frac{a}{\sin(\alpha)} = \frac{b}{\sin(\beta)} = \frac{c}{\sin(\gamma)}$$

$$\frac{10m}{\sin(20^\circ)} = \frac{b}{\sin(70^\circ)}$$

$$b = \frac{10 \cdot \sin(70^\circ)}{\sin(20^\circ)}$$

$$b = 29,39$$