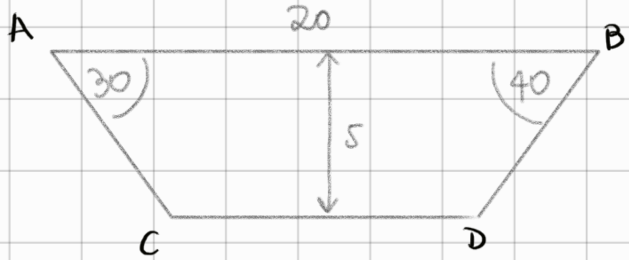
1



$\overline{AB} = 20$

$h = 5$

- Determinar Perímetro

$$\sin(30) = \frac{5}{\overline{AC}} \Rightarrow \overline{AC} = \frac{5}{\sin(30)} \Rightarrow \overline{AC} = 10$$

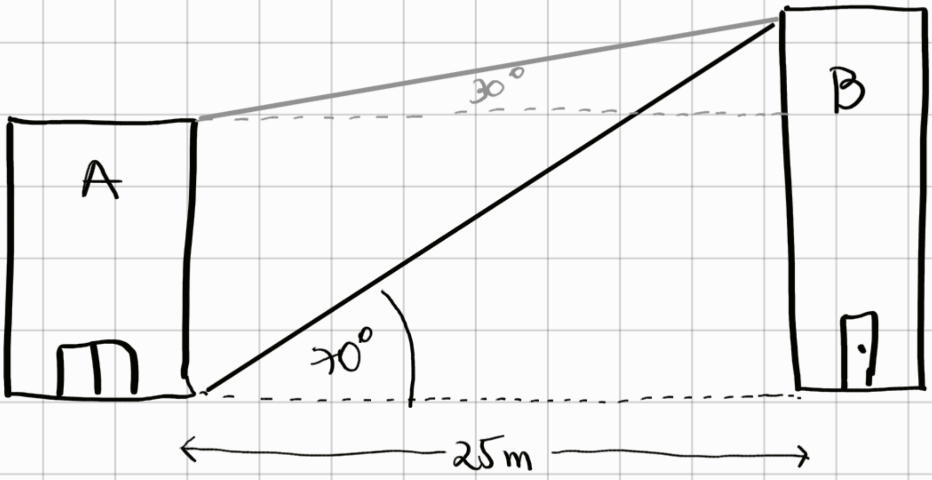
$$\sin(40) = \frac{5}{\overline{BD}} \Rightarrow \overline{BD} = \frac{5}{\sin(40)} = \frac{5}{0{,}643} = 7{,}776$$

$$\overline{CD} = 20 - \overline{AC} \cdot \cos(30) - \overline{BD} \cdot \cos(40)$$

$$\Rightarrow \overline{CD} = 5{,}383 \qquad \therefore \text{Perímetro} = \overline{AB} + \overline{BD} + \overline{CD} + \overline{AC}$$

$$= 43{,}159$$

2



solución

$h_B :=$ Altura de B

$h_A :=$ Altura de A

$d :=$ Diferencia de altura entre B y A $(h_B - h_A)$

$$\tan(70) = \frac{h_B}{25} \Rightarrow h_B = 25 \cdot \tan(70°)$$

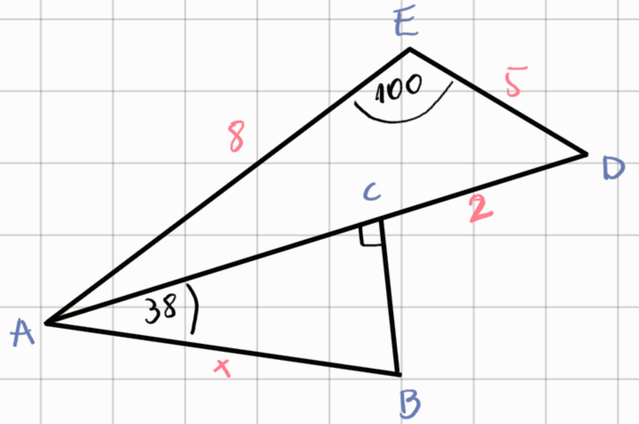
$$\Rightarrow h_B = 68,687$$

$$\tan(30) = \frac{d}{25} \Rightarrow d = 25 \cdot \tan(30)$$

$$d = 14,434$$

$$\Rightarrow h_A = h_B - d \Rightarrow h_A = 54,253$$

③



$\overline{AE} = 8$

$\overline{ED} = 5$

$\overline{CD} = 2$

- Determinar $\overline{AB}$

$$(\overline{AD})^2 = 8^2 + 5^2 - 80 \cdot \cos(100)$$

$$\Rightarrow \overline{AD} = 10,144 \rightarrow \overline{AC} = 8,144$$

$$\cos(38) = \frac{\overline{AC}}{\overline{AB}} \Rightarrow \overline{AB} = \frac{\overline{AC}}{\cos(38)} \Rightarrow \overline{AB} = 10,335$$