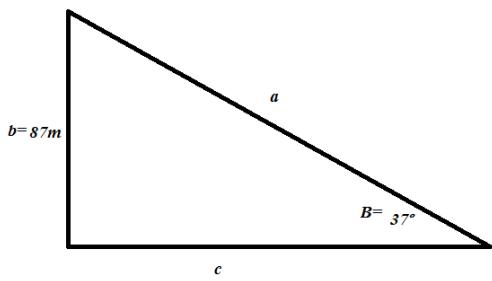


Pág. 150, 2



$$\operatorname{sen} 37^\circ = \frac{87}{a} \rightarrow a \cdot \operatorname{sen} 37^\circ = 87 \rightarrow a = \frac{87}{\operatorname{sen} 37^\circ} = 144'5627m$$

$$\cos 37^\circ = \frac{c}{a}$$

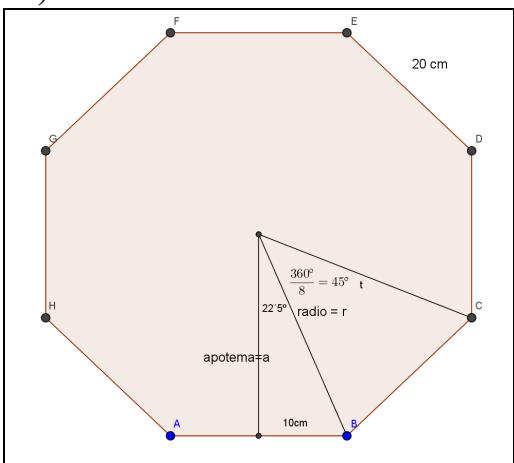
$$\operatorname{tg} 37^\circ = \frac{87}{c} \rightarrow c \cdot \operatorname{tg} 37^\circ = 87 \rightarrow c = \frac{87}{\operatorname{tg} 37^\circ} = 115'4529m$$

Comprobación:

$$144'5627^2 = 87^2 + 115'4529^2$$

$$20898'37 = 20898'37$$

3)



$$\operatorname{sen} 22'55^\circ = \frac{10}{r} \rightarrow r \cdot \operatorname{sen} 22'55^\circ = 10 \rightarrow r = \frac{10}{\operatorname{sen} 22'55^\circ} = 26'1313cm$$

$$\operatorname{tg} 22'55^\circ = \frac{10}{a} \rightarrow a \cdot \operatorname{tg} 22'55^\circ = 10 \rightarrow a = \frac{10}{\operatorname{tg} 22'55^\circ} = 24'1421cm$$

Solución: el radio mide 26'1313 cm
y la apotema 24'1421 cm

Pág. 158.

1.

a)

$$\operatorname{sen} \alpha = \frac{7}{25} = 0'28$$

$$\cos \alpha = \frac{x}{25} = \frac{24}{25} = 0'96$$

$$T.P. \quad 25^2 = 7^2 + x^2; \quad x^2 = 25^2 - 7^2; \quad x = \sqrt{25^2 - 7^2} = 24$$

$$\operatorname{tg} \alpha = \frac{\operatorname{sen} \alpha}{\cos \alpha} = \frac{0'28}{0'96} = 0'2917 \quad \text{o de otra forma} \quad \operatorname{tg} \alpha = \frac{7}{24} = 0'2917$$

De otra forma:

$$\operatorname{sen} \alpha = \frac{7}{25} = 0'28$$

$$F.F.T. \quad \operatorname{sen}^2 \alpha + \cos^2 \alpha = 1; \quad 0'28^2 + \cos^2 \alpha = 1; \quad \cos^2 \alpha = 1 - 0'28^2$$

$$\cos \alpha = \sqrt{1 - 0'28^2} = 0'96$$

De otra forma:

$$\operatorname{sen} \alpha = \frac{7}{25} = 0'28$$

Usando la calculadora: $\alpha = \operatorname{arc} \operatorname{sen} 0'28 = 16'2602047\dots$

$$\cos \alpha = 0'96$$