PROBLEMAS DE TRIGONOMETRÍA

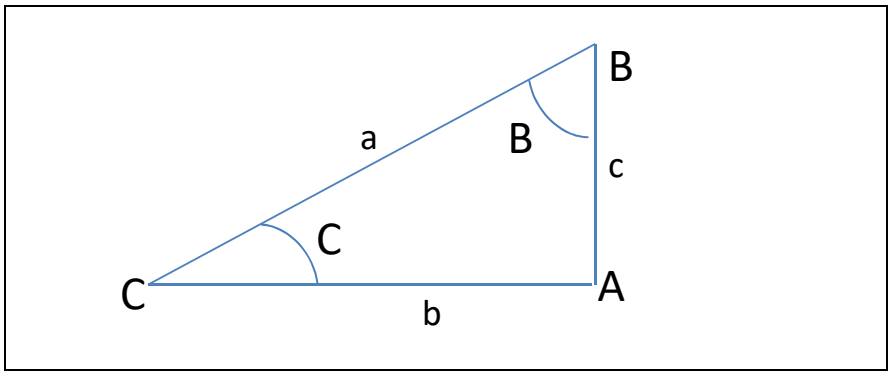
Problema 126:

Resolver un triángulo rectángulo, conociendo c= 15,92 m y:

$$\frac{b}{a} = \frac{47}{110}$$

Solución Problema 126:

Hacemos el croquis:



Sabemos que:

$$\frac{b}{a} = \frac{47}{110}$$

$$\cos C = \frac{b}{a}$$

$$C = arccos\ \frac{b}{a} = arccos \frac{47}{110} = arccos\ 0{,}427 = 64º{,}705 = 64º42´18´´$$

$$B = 90 - C = 90º - 64º{,}705 = 25º{,}295 = 25º\ 17´42´´$$

$$\text{sen } C = \frac{c}{a}$$

$$a = \frac{c}{\text{sen } C} = \frac{15{,}92}{\text{sen } 64º{,}705} = \frac{15{,}92}{0{,}904} = 17{,}61\ m$$

$$\frac{b}{a} = \frac{47}{110}$$

$$\mathrm{b} = \frac{47a}{110} = \frac{47 \cdot 17{,}61}{110} = 7{,}524\, m$$