

Pág 146, 1. Trabajamos con ángulos agudos. (seno, coseno y tangente son positivos)

$$\text{sen } \alpha = 0'6$$

$$\left[\begin{array}{l} \text{sen}^2 \alpha + \text{cos}^2 \alpha = 1 \\ \text{tg } \alpha = \frac{\text{sen } \alpha}{\text{cos } \alpha} \end{array} \right. \rightarrow \begin{array}{l} 0'6^2 + \text{cos}^2 \alpha = 1 \\ \text{tg } \alpha = \frac{0'6}{\text{cos } \alpha} \end{array}$$

$$\text{cos}^2 \alpha = 1 - 0'6^2 \rightarrow \text{cos } \alpha = \pm \sqrt{1 - 0'6^2} = \{\alpha \text{ es agudo}\} = 0'8$$

$$\text{tg } \alpha = \frac{0'6}{0'8} = 0'75$$

2)

$$\text{tg } \alpha = 0'53$$

$$\left[\begin{array}{l} \text{sen}^2 \alpha + \text{cos}^2 \alpha = 1 \\ \text{tg } \alpha = \frac{\text{sen } \alpha}{\text{cos } \alpha} \end{array} \right. \rightarrow \begin{array}{l} 0'53 = \frac{\text{sen } \alpha}{\text{cos } \alpha} \\ \text{sen } \alpha = 0'53 \text{ cos } \alpha \end{array}$$

$$(0'53 \text{ cos } \alpha)^2 + \text{cos}^2 \alpha = 1 \rightarrow 0'2809 \text{cos}^2 \alpha + \text{cos}^2 \alpha = 1$$

$$1'2809 \text{cos}^2 \alpha = 1 \rightarrow \text{cos}^2 \alpha = \frac{1}{1'2809} \rightarrow \text{cos } \alpha = \pm \sqrt{\frac{1}{1'2809}} =$$

$$= \{\alpha \text{ es agudo}\} = 0'8836$$

$$\text{sen } \alpha = 0'53 \cdot 0'8836 = 0'4683$$

$$\text{Solución: } \text{sen } \alpha = 0'4683 \text{ y } \text{cos } \alpha = 0'8836$$

$$\left[\text{tg } \alpha = \frac{0'4683}{0'8836} = 0'5300 \right]$$

Tabla de razones

Ángulo	Seno	Coseno	Tangente
0°	0	1	0
30°	0'5	0'8660	0'5773
45°	0'7071	0'7071	1
60°	0'8660	0'5	1'7321
90°	1	0	No existe

Pág. 149, 2 (usando la calculadora)