

$$\frac{\operatorname{cosec} d - \operatorname{sen} d}{\operatorname{sec} d - \cos d} = \boxed{\cotg^3 d}$$

$$\frac{\frac{1}{\operatorname{sen} d} - \operatorname{sen} d}{\frac{1}{\cos d} - \cos d} =$$

$$\frac{1 - \operatorname{sen}^2 d}{\operatorname{sen} d} \quad \text{--- (B)}$$

$$\frac{1 - \cos^2 d}{\cos d} \quad \text{--- (A)}$$

$$\frac{\cos^2 d}{\operatorname{sen} d} \quad \text{--- (B)}$$

$$\frac{\frac{\cos^2 d}{\operatorname{sen} d}}{\frac{1 - \cos^2 d}{\cos d}} = \frac{\cos d \cdot \cos^2 d}{\operatorname{sen} d \cdot \operatorname{sen}^2 d} = \frac{\cos^3 d}{\operatorname{sen}^3 d} = \boxed{\cotg^3 d}$$

Recordemos que:

$$\operatorname{sen}^2 d + \cos^2 d = 1$$

$$\boxed{\cos^2 d = 1 - \operatorname{sen}^2 d} \quad \text{--- (B)}$$

$$\boxed{\operatorname{sen}^2 d = 1 - \cos^2 d} \quad \text{--- (A)}$$

Queda demostrada la identidad !!!