

n°126

$$\begin{aligned} & [\operatorname{sen} \alpha - \cos \alpha]^2 \cdot \frac{-\operatorname{sen} \alpha}{-\cos \alpha} + \frac{-\operatorname{sen} \alpha}{\cos \alpha} + \operatorname{sen}^2 \alpha = \\ & = [\operatorname{sen}^2 \alpha - 2 \operatorname{sen} \alpha \cos \alpha + \cos^2 \alpha] \cdot \frac{\operatorname{sen} \alpha}{\cos \alpha} - \frac{\operatorname{sen} \alpha}{\cos \alpha} + \operatorname{sen}^2 \alpha = \\ & = [1 - 2 \operatorname{sen} \alpha \cos \alpha] \cdot \frac{\operatorname{sen} \alpha}{\cos \alpha} - \frac{\operatorname{sen} \alpha}{\cos \alpha} + \operatorname{sen}^2 \alpha = \\ & = \frac{\operatorname{sen} \alpha}{\cos \alpha} - 2 \operatorname{sen}^2 \alpha - \frac{\operatorname{sen} \alpha}{\cos \alpha} + \operatorname{sen}^2 \alpha = -\operatorname{sen}^2 \alpha \end{aligned}$$

n°127

$$\begin{aligned} & \frac{\cos^3 \alpha - \operatorname{sen}^3 \alpha}{1 + (-\operatorname{sen} \alpha)(-\cos \alpha)} - \cos \alpha - (-\operatorname{sen} \alpha) = \\ & = \frac{(\cos \alpha - \operatorname{sen} \alpha)(\cos^2 \alpha + \operatorname{sen} \alpha \cos \alpha + \operatorname{sen}^2 \alpha)}{1 + \operatorname{sen} \alpha \cos \alpha} - \cos \alpha + \operatorname{sen} \alpha = \\ & = \cos \alpha - \operatorname{sen} \alpha - \cos \alpha + \operatorname{sen} \alpha = 0 \end{aligned}$$

n°128

testo dell'espressione dalla moltiplicazione

$$\begin{aligned} & \frac{\left[\frac{-\operatorname{sen} \alpha}{\cos \alpha} - 1 \right]^2 + 2 \left[\frac{\operatorname{sen} \alpha}{-\cos \alpha} - \frac{\operatorname{sen}^2 \alpha}{\cos^2 \alpha} \right] - \frac{\operatorname{sen}^3 \alpha}{\operatorname{sen} \alpha} + \cos^2 \alpha}{1 + \frac{\operatorname{sen} \alpha}{\cos \alpha}} \\ & = \frac{\left[-\operatorname{tg} \alpha - 1 \right]^2 + 2 \left[-\operatorname{tg} \alpha - \operatorname{tg}^2 \alpha \right] - 1}{1 + \operatorname{tg} \alpha} = -1 = \\ & \frac{\operatorname{tg}^2 \alpha + 2 \operatorname{tg} \alpha + 1 - 2 \operatorname{tg} \alpha - 2 \operatorname{tg}^2 \alpha - 1}{1 + \operatorname{tg} \alpha} = \\ & \frac{1 - \operatorname{tg}^2 \alpha - 1}{1 + \operatorname{tg} \alpha} = \frac{(1 - \operatorname{tg} \alpha)(1 + \operatorname{tg} \alpha) - 1}{1 + \operatorname{tg} \alpha} = \cancel{1 - \operatorname{tg} \alpha} - 1 = -\operatorname{tg} \alpha \end{aligned}$$