

PRACTICAMOS LO APRENDIDO – IDENTIDADES TRIGONOMÉTRICAS

Alumno (a):

Grado y sección:

Fecha:

01. Simplifique: $P = \frac{\sec^4 \theta \cdot \csc^4 \theta - \sec^4 \theta - \csc^4 \theta}{\sec^2 \theta \cdot \csc^2 \theta}$

02. Simplifique: $N = \frac{\cos^4 x + 2\sin^2 x - \sin^4 x}{(\sin x + \cos x)^2 + (\sin x - \cos x)^2}$

03. Simplificar

$$M = \sqrt{\sin^2 x + \cos^2 x + \operatorname{Tg}^2 x}$$

04. Simplificar

$$O = \sqrt{\cot^2 \theta + \cos \theta} \cdot \sqrt{1 + \operatorname{Tg}^2 \theta}$$

05. Simplificar

$$N = \frac{\cot \theta - \operatorname{Tg} \theta}{(\cot \theta + \operatorname{Tg} \theta)(\cos^4 \theta - \sin^4 \theta)}$$

06. Si: $\sin x \cdot \cos x = \frac{1}{4}$, hallar el valor de: $k = \sin^4 x + \cos^4 x$

07. Si: $\frac{1 - \operatorname{Tg}^2 \alpha}{1 - \cot^2 \alpha} = 1 - a$, hallar el valor de: $P = \frac{\sin^2 \alpha + a \cdot \cos^2 \alpha}{\sin^2 \alpha - a \cdot \cos^2 \alpha}$

08. Si: $\text{Sen}\theta - \text{Sen}^3\theta = p$ y $\text{Cos}\theta - \text{Cos}^3\theta = q$, calcular el valor de $\text{Tg}\theta$

09. Si se cumple: $\text{Sec}\alpha \cdot \text{Csc}\alpha = 5$, calcule el valor de: $R = \text{Tg}^2\alpha + \text{Cot}^2\alpha$

10. Si: $\text{Cot}\beta - \text{Csc}\beta = \sqrt{3}$, hallar el valor de: $L = \sqrt{3} \cdot (\text{Cot}\beta + \text{Csc}\beta)$

11. Reducir: $\text{csc}^6 10 - \text{ctg}^6 10 - 3\text{csc}^2 10 \cdot \text{ctg}^2 10$

12. Reducir:
$$\frac{\cos\theta(\text{tg}\theta+2)(2\text{tg}\theta+1)}{4\text{sec}\theta+10\text{sen}\theta}$$