

REGLAS DE DIFERENCIACIÓN PARA RUECORDAR

$$(u \cdot v)' = u \cdot v' + v \cdot u' \quad \left(\frac{u}{v}\right)' = \frac{v \cdot u' - u \cdot v'}{v^2} \quad \frac{d}{dx}(u)^n = nu^{n-1} \frac{d}{dx}u$$

$$\frac{d}{dx}(\sin x) = \cos x$$

$$\frac{d}{dx}(\csc x) = -\csc x \cot x$$

$$\frac{d}{dx}(e^x) = e^x$$

$$\frac{d}{dx}(\cos x) = -\sin x$$

$$\frac{d}{dx}(\sec x) = \sec x \tan x$$

$$\frac{d}{dx}(\tan x) = \sec^2 x$$

$$\frac{d}{dx}(\cot x) = -\csc^2 x$$

IDENTIDADES TRIGONOMÉTRICAS BÁSICAS

Identidades del cociente $\tan x = \frac{\sin x}{\cos x}$

Identidades recíprocas $\csc \theta = \frac{1}{\sin \theta}$ $\sec \theta = \frac{1}{\cos \theta}$ $\cot \theta = \frac{1}{\tan \theta}$

Identidades Pitagóricas $\sin^2 \theta + \cos^2 \theta = 1$ $\tan^2 \theta + 1 = \sec^2 \theta$

$$1 + \cot^2 \theta = \csc^2 \theta$$

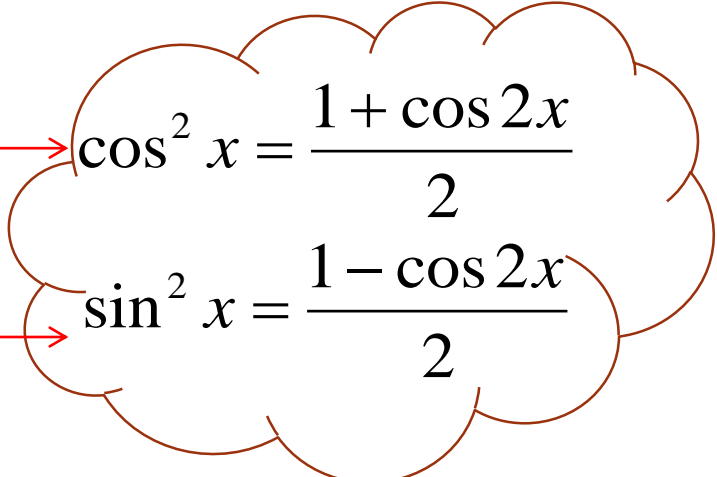
Identidades del ángulo doble

$$\sin 2x = 2 \sin x \cos x$$

$$\cos 2x = \cos^2 x - \sin^2 x$$

$$\cos 2x = 2 \cos^2 x - 1$$

$$\cos 2x = 1 - 2 \sin^2 x$$


$$\cos^2 x = \frac{1 + \cos 2x}{2}$$

$$\sin^2 x = \frac{1 - \cos 2x}{2}$$