

Tabla de Integrales

INTEGRALES TRIGONOMETRICAS $\int \operatorname{sen} x \, dx = -\cos x + c$ $\int \cos x \, dx = \operatorname{sen} x + c$ $\int \sec^2 x \, dx = \tan x + c$ $\int \tan x \sec x = \sec x + c$ $\int \csc^2 x \, dx = -\cot x + c$ $\int \cot x \csc x \, dx = -\csc x + c$ $\int \tan x \, dx = \ln \sec x + c$ $\int \cot x \, dx = \ln \operatorname{sen} x + c$ $\int \sec x \, dx = \ln \sec x + \tan x + c$ $\int \csc x \, dx = \ln \csc x - \cot x + c$	INTEGRALES DIIRECTAS $\int dx = x + c$ $\int a \, dx = ax + c$ $\int x^n \, dx = \frac{x^{n+1}}{n+1} + c$ $\int \frac{dx}{x} = \ln x + c$ $\int a^x \, dx = \frac{a^x}{\ln a } + c$ $\int e^x \, dx = e^x + c$	I. INVERSAS TRIGONOMETRICAS $\int \frac{1}{\sqrt{a^2 - x^2}} \, dx = \operatorname{sen}^{-1}\left(\frac{x}{a}\right) + c$ $\int -\frac{1}{\sqrt{a^2 - x^2}} \, dx = \cos^{-1}\left(\frac{x}{a}\right) + c$ $\int \frac{1}{a^2 + x^2} \, dx = \frac{1}{a} \tan^{-1}\left(\frac{x}{a}\right) + c$ $\int -\frac{1}{a^2 + x^2} \, dx = \frac{1}{a} \cot^{-1}\left(\frac{x}{a}\right) + c$ $\int \frac{1}{x\sqrt{x^2 - 1}} \, dx = \frac{1}{a} \sec^{-1}\left(\frac{x}{a}\right) + c$ $\int -\frac{1}{x\sqrt{x^2 - 1}} \, dx = \frac{1}{a} \csc^{-1}\left(\frac{x}{a}\right) + c$	
SUSTITUCION TRIGONOMETRICA $\sqrt{a^2 - x^2} \rightarrow x = a \operatorname{sen} \theta$ $\sqrt{a^2 + x^2} \rightarrow x = a \tan \theta$ $\sqrt{x^2 - a^2} \rightarrow x = a \sec \theta$	I. POR PARTES $\int u \, dv = uv - \int v \, du$	RAZONES TRIGONOMETRICAS $\operatorname{sen} x = \frac{\text{op}}{\text{hip}} \quad \tan x = \frac{\text{op}}{\text{ad}} \quad \sec x = \frac{\text{hip}}{\text{ad}}$ $\cos x = \frac{\text{ad}}{\text{hip}} \quad \cot x = \frac{\text{ad}}{\text{op}} \quad \csc x = \frac{\text{hip}}{\text{op}}$	
	IDENTIDADES COCIENTES $\tan x = \frac{\operatorname{sen} x}{\cos x}$ $\cot x = \frac{\cos x}{\operatorname{sen} x}$ $\csc x = \frac{\sec x}{\tan x}$	IDENTIDADES RECIPROCAS $\operatorname{sen} x = \frac{1}{\csc x}$ $\cos x = \frac{1}{\sec x}$ $\tan x = \frac{1}{\cot x}$	DERIVADAS TRIGONOMETRICAS $\operatorname{sen} x = \cos x$ $\cos x = -\operatorname{sen} x$ $\tan x = \sec^2 x$ $\sec x = \sec x \tan x$ $\cot x = -\csc^2 x$ $\csc^2 x = -\cot x$ $\csc x = -\csc x \cot x$