# Tabla de integrales

## Integrales básicas

$$\int kf(x)dx = k\int f(x)dx$$

$$\int [f(x) \pm g(x)]dx = \int f(x)dx \pm \int g(x)dx$$

$$\int dx = x + C$$

$$\int x^n dx = \frac{x^{n+1}}{n+1} + C, n \neq -1$$

$$\int \frac{dx}{x} = \ln|x| + C$$

$$\int e^x dx = e^x + C$$

$$\int \log_b x\, dx = x\log_b x - \frac{x}{\ln b} + C$$

$$\int a^x dx = \frac{a^x}{\ln a} + C$$

## Integrales trigonométricas

$$\int \operatorname{sen} x\, dx = -\cos x + C$$

$$\int \cos x\, dx = \operatorname{sen} x + C$$

$$\int \tan x\, dx = -\ln|\cos x| + C$$

$$\int \cot x\, dx = \ln|\operatorname{sen} x| + C$$

$$\int \sec x\, dx = \ln|\sec x + \tan x| + C$$

$$\int \csc x\, dx = \ln|\csc x + \cot x| + C$$

## Integrales de productos y potencias trigonométricas

$$\int \sec^2 x\, dx = \tan x + C$$

$$\int \csc^2 x\, dx = -\cot x + C$$

$$\int \sec x \tan x\, dx = \sec x + C$$

$$\int \csc x \cot x\, dx = -\csc x + C$$

## Integrales que dan como resultado funciones trigonométricas inversas

$$\int \frac{dx}{\sqrt{a^2 - x^2}} = \operatorname{sen}^{-1}\left(\frac{x}{a}\right) + C$$

$$\int \frac{dx}{a^2 + x^2} = \frac{1}{a}\tan^{-1}\left(\frac{x}{a}\right) + C$$

$$\int \frac{dx}{x\sqrt{x^2 - a^2}} = \frac{1}{a}\sec^{-1}\left(\frac{|x|}{a}\right) + C$$