Universidad de Costa Rica
Facultad de Ciencias
Escuela de Matemática
Departamento de Matemática Aplicada
MA 1001-MA 1101 Cálculo I
II Ciclo 2017

Lista de integrales

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

$$\int k \, dx = kx + C, \; k \in \mathbb{R}$$

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

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

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

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

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

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

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

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

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

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

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

$$\int \frac{1}{x} \, dx = \ln|x| + C$$

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

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

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