



Primitivas Imediatas

Na lista de primitivas que se segue, $f : I \rightarrow \mathbb{R}$ é uma função derivável no intervalo I e \mathcal{C} denota uma constante real arbitrária.

$$\int a \, dx = ax + \mathcal{C} \quad (a \in \mathbb{R})$$

$$\int \frac{f'(x)}{f(x)} \, dx = \ln |f(x)| + \mathcal{C}$$

$$\int f'(x) \cos(f(x)) \, dx = \text{sen}(f(x)) + \mathcal{C}$$

$$\int f'(x) \sec^2(f(x)) \, dx = \text{tg}(f(x)) + \mathcal{C}$$

$$\int f'(x) \text{tg}(f(x)) \, dx = -\ln |\cos(f(x))| + \mathcal{C}$$

$$\int f'(x) \text{ch}(f(x)) \, dx = \text{sh}(f(x)) + \mathcal{C}$$

$$\int f'(x) \text{cosech}^2(f(x)) \, dx = \text{th}(f(x)) + \mathcal{C}$$

$$\int f'(x) \text{th}(f(x)) \, dx = \ln(\cosh(f(x))) + \mathcal{C}$$

$$\int \frac{f'(x)}{\sqrt{1-f^2(x)}} \, dx = \arcsen(f(x)) + \mathcal{C}$$

$$\int \frac{f'(x)}{\sqrt{f^2(x)+1}} \, dx = \text{argsh}(f(x)) + \mathcal{C}$$

$$\int f'(x) f^\alpha(x) \, dx = \frac{f^{\alpha+1}(x)}{\alpha+1} + \mathcal{C} \quad (\alpha \neq -1)$$

$$\int a^{f(x)} f'(x) \, dx = \frac{a^{f(x)}}{\ln a} + \mathcal{C} \quad (a \in \mathbb{R}^+ \setminus \{1\})$$

$$\int f'(x) \text{sen}(f(x)) \, dx = -\cos(f(x)) + \mathcal{C}$$

$$\int f'(x) \text{cosec}^2(f(x)) \, dx = -\cotg(f(x)) + \mathcal{C}$$

$$\int f'(x) \cotg(f(x)) \, dx = \ln |\text{sen}(f(x))| + \mathcal{C}$$

$$\int f'(x) \text{sh}(f(x)) \, dx = \text{ch}(f(x)) + \mathcal{C}$$

$$\int f'(x) \text{sech}^2(f(x)) \, dx = -\coth(f(x)) + \mathcal{C}$$

$$\int f'(x) \coth(f(x)) \, dx = \ln |\text{sh}(f(x))| + \mathcal{C}$$

$$\int \frac{f'(x)}{1+f^2(x)} \, dx = \arctg(f(x)) + \mathcal{C}$$

$$\int \frac{f'(x)}{\sqrt{f^2(x)-1}} \, dx = \text{argch}(f(x)) + \mathcal{C}$$