INTEGRALES INMEDIATAS

$\int dx = x + C \quad \int k\cdot dx = kx + C$	**Si f(x) es lineal**	**f(x) cualquier función**
$\int x^m dx = \frac{x^{m+1}}{m+1} + C; \quad \int kx^m = k\frac{x^{m+1}}{m+1} + C$ **m ≠ -1**	$\int [f(x)]^m dx = \frac{[f(x)]^{m+1}}{(m+1)\cdot f'(x)} + C$ **m ≠ -1**	$\int f'(x)\cdot[f(x)]^m dx = \frac{[f(x)]^{m+1}}{m+1} + C$ **m ≠ -1**
$\int \frac{1}{x} dx = \ln x + C$	$\int \frac{1}{f(x)} dx = \frac{\ln\|f(x)\|}{f'(x)} + C$	$\int \frac{f'(x)}{f(x)} dx = \ln\|f(x)\| + C$
$\int \sqrt{x}\, dx = \frac{2}{3} x\sqrt{x} + C$	$\int \sqrt{f(x)}\, dx = \frac{2}{3}\frac{f(x)\cdot\sqrt{f(x)}}{f'(x)} + C$	$\int f'(x)\cdot\sqrt{f(x)}\, dx = \frac{2}{3} f(x).\sqrt{f(x)} + C$
$\int a^x dx = \frac{a^x}{\ln a} + C$	$\int a^{f(x)} dx = \frac{a^{f(x)}}{f'(x)\cdot \ln a} + C$	$\int f'(x)\cdot a^{f(x)} dx = \frac{a^{f(x)}}{\ln a} + C$
$\int e^x dx = e^x + C$	$\int e^{f(x)} dx = \frac{e^{f(x)}}{f'(x)} + C$	$\int f'(x)\cdot e^{f(x)} dx = e^{f(x)} + C$
$\int \text{sen } x\, dx = -\cos x + C$	$\int \text{sen } f(x)\, dx = -\frac{\cos f(x)}{f'(x)} + C$	$\int f'(x)\cdot \text{sen } f(x)\, dx = -\cos f(x) + C$
$\int \cos x\, dx = \text{sen } x + C$	$\int \cos f(x)\, dx = \frac{\text{sen } f(x)}{f'(x)} + C$	$\int f'(x)\cdot \cos f(x) = \text{sen } f(x) + C$
$\int \text{tg } x\, dx = -\ln\|\cos x\| + C$	$\int \text{tg } f(x)\, dx = -\frac{\ln\|\cos f(x)\|}{f'(x)} + C$	$\int f'(x)\cdot \text{tg } f(x)\, dx = -\ln\|\cos f(x)\| + C$

$\int \cot g\ x\ dx = \ln\lvert \text{sen}\ x \rvert + C$	$\int \cot g\ f(x)\ dx = \frac{\ln\lvert \text{sen}\ f(x) \rvert}{f'(x)} + C$	$\int f'(x) \cdot \cot g\ f(x)\ dx = \ln\lvert \text{sen}\ f(x) \rvert + C$
$\int \sec x \cdot \text{tg}\ x\ dx = \sec x + C$	$\int \sec f(x) \cdot \text{tg}\ f(x)\ dx = \frac{\sec f(x)}{f'(x)} + C$	$\int f'(x) \cdot \sec f(x).\text{tg}\ f(x)\ dx = \sec f(x) + C$
$\int \cos ec\ x \cdot \text{cotg} x\ dx = - \text{cosec}\ x + C$	$\int \cos ec\ f(x) \cdot \text{cotg}\ f(x)\ dx = - \frac{\text{cosec}\ f(x)}{f'(x)} + C$	$\int f'(x) \cdot \cos ec\ f(x) \cdot \cot g\ f(x)\ dx = - \text{cosec}\ f(x) + C$
$\int (1 + \text{tg}^2 x) dx = \int \sec^2 x\ dx = \int \frac{1}{\cos^2 x} dx = \text{tg}\ x + C$	$\int [1 + \text{tg}^2 f(x)] dx = \frac{\text{tg}\ f(x)}{f'(x)} + C$	$\int f'(x) \cdot [1 + \text{tg}^2\ f(x)] dx = \text{tg}\ f(x) + C$
$\int (1 + \text{cotg}^2 x) dx = \int \text{cosec}^2 x\ dx = \int \frac{1}{\text{sen}^2 x} dx = - \text{cotg}\ x + C$	$\int [1 + \text{cotg}^2\ f(x)] dx = - \frac{\text{cotg}\ f(x)}{f'(x)} + C$	$\int f'(x) \cdot [1 + \text{cotg}^2 f(x)] dx = - \text{cotg}\ f(x) + C$
$\int \frac{1}{\sqrt{1 - x^2}} dx = \text{arcsen}\ x + C$	$\int \frac{1}{\sqrt{1 - [f(x)]^2}} dx = \frac{\text{arcsen}\ f(x)}{f'(x)} + C$	$\int \frac{f'(x)}{\sqrt{1 - [f(x)]^2}} dx = \text{arcsen}\ f(x) + C$ $\int \frac{1}{\sqrt{a^2 - x^2}} dx = \text{arcsen} \frac{x}{a} + C$
$\int - \frac{1}{\sqrt{1 - x^2}} dx = \arccos x + C$	$\int - \frac{1}{\sqrt{1 - [f(x)]^2}} dx = \frac{\text{arc} \cos f(x)}{f'(x)} + C$	$\int - \frac{f'(x)}{\sqrt{1 - [f(x)]^2}} dx = \arccos f(x) + C$ $\int - \frac{1}{\sqrt{a^2 - x^2}} dx = \arccos \frac{x}{a} + C$
$\int \frac{1}{1 + x^2} dx = \text{arctg}\ x + C$	$\int \frac{1}{1 + [f(x)]^2} dx = \frac{\text{arctg}\ f(x)}{f'(x)} + C$	$\int \frac{f'(x)}{1 + [f(x)]^2} dx = \text{arctg}\ f(x) + C$ $\int \frac{1}{a^2 + x^2} dx = \frac{1}{a} \cdot \text{arctg} \frac{x}{a} + C$

$\int -\frac{1}{1+x^2}\,dx = \text{arccotg}\ x + C$	$\int -\frac{1}{1+[f(x)]^2}\,dx = \frac{\text{arccotg}\ f(x)}{f'(x)} + C$	$\int -\frac{f'(x)}{1+[f(x)]^2}\,dx = \text{arccotg}\ f(x) + C$ $\int -\frac{1}{a^2+x^2}\,dx = \frac{1}{a}\cdot \text{arccotg}\frac{x}{a} + C$
$\int \frac{1}{x\cdot\sqrt{x^2-1}}\,dx = \text{arcsec}\ x + C$	$\int \frac{1}{f(x)\cdot\sqrt{[f(x)]^2-1}}\,dx = \frac{\text{arc sec}\ f(x)}{f'(x)} + C$	$\int \frac{f'(x)}{f(x).\sqrt{[f(x)]^2-1}}\,dx = \text{arcsec}\ f(x) * C$
$\int -\frac{1}{x\cdot\sqrt{x^2-1}}\,dx = \text{arccosec}\ x + C$	$\int -\frac{1}{f(x)\cdot\sqrt{[f(x)]^2-1}}\,dx = \frac{\text{arccosec}\ f(x)}{f'(x)} + C$	$\int -\frac{f'(x)}{f(x)\cdot\sqrt{[f(x)]^2-1}}\,dx = \text{arccosec}\ f(x) + C$