Integrales inmediatas

Función simple	*Función compuesta*
$\int dx = x + k$	
$\int x^n dx = \frac{x^{n+1}}{n+1} + k \quad (n \neq -1)$	$\int f^n \cdot f' dx = \frac{f^{n+1}}{n+1} + k \quad (n \neq -1)$
$\int \frac{1}{x} dx = \ln\lvert x\rvert + k$	$\int \frac{f'}{f} dx = \ln\lvert f\rvert + k$
$\int e^x dx = e^x + k$	$\int e^f \cdot f' dx = e^f + k$
$\int a^x dx = \frac{a^x}{\ln a} + k$	$\int a^f \cdot f' dx = \frac{a^f}{\ln a} + k$
$\int \operatorname{sen} x \, dx = -\cos x + k$	$\int \operatorname{sen} f \cdot f' \; dx = -\cos f + k$
$\int \cos x \, dx = \operatorname{sen} x + k$	$\int \cos f \cdot f' \; dx = \operatorname{sen} f + k$
$\int \frac{1}{\cos^2 x} dx = \int \sec^2 x \, dx = $ $= \int (1 + \operatorname{tg}^2 x) dx = \operatorname{tg} x + k$	$\int \frac{f'}{\cos^2 f} dx = \int f' \cdot \sec^2 f \; dx =$ $= \int (1 + \operatorname{tg}^2 f) \cdot f' dx = \operatorname{tg} f + k$
$\int \frac{1}{\operatorname{sen}^2 x} dx = \int \operatorname{cosec}^2 x \, dx =$ $= \int (1 + \operatorname{cotg}^2 x) dx = -\operatorname{cotg} x + k$	$\int \frac{f'}{\operatorname{sen}^2 f} dx = \int f' \operatorname{cosec}^2 f \, dx =$ $= \int f'(1 + \operatorname{cotg}^2 f) dx = -\operatorname{cotg} f + k$
$\int \frac{1}{\sqrt{1-x^2}} dx = \operatorname{arcsen} x + k$	$\int \frac{f'}{\sqrt{1-f^2}} dx = \operatorname{arcsen} f + k$
$\int \frac{-1}{\sqrt{1-x^2}} dx = \arccos x + k$	$\int \frac{-f'}{\sqrt{1-f^2}} dx = \arccos f + k$
$\int \frac{1}{1+x^2} dx = \operatorname{arctg} x + k$	$\int \frac{f'}{1+f^2} dx = \operatorname{arctg} f + k$

Reglas de integración

$$\left[\int f(x) dx\right]' = f(x)$$

$$\int f'(x) dx = f(x) + C$$

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

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