

TABLA DE INTEGRALES INMEDIATAS

TIPOS	FORMAS	
	Simple	Compuesta
Potencial $n \neq -1$	$\int x^n dx = \frac{x^{n+1}}{n+1} + k$	$\int f'(x)f(x)^n dx = \frac{f(x)^{n+1}}{n+1} + k$
Logarítmico	$\int \frac{1}{x} dx = \int x^{-1} dx = \ln x + k$	$\int \frac{f'(x)}{f(x)} dx = \ln f(x) + k$
Exponencial	$\int e^x dx = e^x + k$ $\int a^x dx = \frac{a^x}{\ln a} + k$	$\int e^{f(x)} f'(x) dx = e^{f(x)} + k$ $\int a^{f(x)} f'(x) dx = \frac{a^{f(x)}}{\ln a} + k$
Seno	$\int \cos x dx = \sin x + k$	$\int \cos f(x) \cdot f'(x) dx = \sin f(x) + k$
Coseno	$\int \sin x dx = -\cos x + k$	$\int \sin f(x) \cdot f'(x) dx = -\cos f(x) + k$
Tangente	$\int \sec^2 x dx = \operatorname{tg} x + k$ $\int (1 + \operatorname{tg}^2 x) dx = \operatorname{tg} x + k$ $\int \frac{1}{\cos^2 x} dx = \operatorname{tg} x + k$	$\int \sec^2 f(x) \cdot f'(x) dx = \operatorname{tg} f(x) + k$ $\int \frac{f'(x)}{\cos^2 f(x)} dx = \operatorname{tg} f(x) + k$
Cotangente	$\int \operatorname{cosec}^2 x dx = -\operatorname{cotg} x + k$ $\int (1 + \operatorname{cosec}^2 x) dx = -\operatorname{cotg} x + k$ $\int \frac{1}{\sin^2 x} dx = -\operatorname{cotg} x + k$	$\int \operatorname{cosec}^2 f(x) \cdot f'(x) dx = -\operatorname{cotg} f(x) + k$ $\int (1 + \operatorname{cosec}^2 f(x)) f'(x) dx = -\operatorname{cotg} f(x) + k$ $\int \frac{f'(x)}{\sin^2 f(x)} dx = -\operatorname{cotg} f(x) + k$
Arco seno	$\int \frac{1}{\sqrt{1-x^2}} dx = \arcsen x + k$	$\int \frac{f'(x)}{\sqrt{1-f(x)^2}} dx = \arcsen f(x) + k$
Arco tangente	$\int \frac{1}{1+x^2} dx = \operatorname{arctg} x + k$ $\int \frac{1}{a^2+x^2} dx = \frac{1}{a} \operatorname{arctg} \frac{x}{a} + k$	$\int \frac{f'(x)}{1+f(x)^2} dx = \operatorname{arctg} f(x) + k$ $\int \frac{f'(x)}{a^2+f(x)^2} dx = \frac{1}{a} \operatorname{arctg} \frac{f(x)}{a} + k$
Neperiano – Arco tangente	$\int \frac{Mx+N}{ax^2+bx+c} dx = \text{neperiano} + \text{arco tangente} + k$ $M \neq 0, \quad ax^2+bx+c \text{ irreducible}$	