Tabla de Primitivas

Tabla de Integrales
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Tipos	Formas	
	Simple	Compuesta
Potencial $(a \neq -1)$	$\int x^a dx = \frac{x^{a+1}}{a+1}$	$\int f' \cdot f^a dx = \frac{f^{a+1}}{a+1}$
Logarítmico	$\int \frac{1}{x} dx = \ln\lvert x\rvert$	$\int \frac{f'}{f} dx = \ln\lvert f\rvert$
Exponencial	$\int e^x dx = e^x$ $\int a^x dx = a^x \cdot \ln a$	$\int e^{f(x)} \cdot f'(x) dx = e^{f(x)}$ $\int a^{f(x)} \cdot f'(x) dx = \frac{a^{f(x)}}{\ln a}$
Seno	$\int \cos x dx = sen x$	$\int \cos f \cdot f' dx = sen f$
Coseno	$\int sen x dx = -\cos x$	$\int sen f \cdot f' dx = -\cos f$
Tangente	$\int \sec^2 x dx = tgx$ $\int (1 + tg^2 x) dx = tgx$ $\int \frac{1}{\cos^2 x} dx = tgx$	$\int \sec^2(f) \cdot f' dx = tg(f)$ $\int [1 + tg^2(f)] \cdot f' dx = tg(f)$ $\int \frac{f'}{\cos^2(f)} dx = tg(f)$
Cotangente	$\int cosec^2 x dx = -cotgx$ $\int (1 + cotg^2 x) dx = -cotgx$ $\int \frac{1}{sen^2 x} dx = -cotgx$	$\int cosec^2(f) \cdot f' dx = -cotg(f)$ $\int [1 + cotg^2(f)] \cdot f' dx = -cotg(f)$ $\int \frac{f'}{Sen^2(f)} dx = -cotg(f)$
Arco Seno	$\int \frac{1}{\sqrt{1-x^2}} dx = Arcsen(x) = -Arc\cos(x)$ $\int \frac{1}{\sqrt{a^2-x^2}} dx = Arcsen\left(\frac{x}{a}\right) = -Arc\cos\left(\frac{x}{a}\right)$	$\int \frac{f'}{\sqrt{1-f^2}} dx = Arcsen(f) = -Arc\cos(f)$ $\int \frac{f'}{\sqrt{a^2-f^2}} dx = Arcsen\left(\frac{f}{a}\right) = -Arc\cos\left(\frac{f}{a}\right)$
Arco Tangente	$\int \frac{1}{1+x^2} dx = arctg(x)$ $\int \frac{1}{a^2+x^2} dx = \frac{1}{a} arctg\left(\frac{x}{a}\right)$	$\int \frac{f'}{1+f^2} dx = arctg(f)$ $\int \frac{f'}{a^2+f^2} dx = \frac{1}{a} arctg\left(\frac{f}{a}\right)$
Neperiano - Arco tangente	$\int \frac{Mx+N}{ax^2+bx+c} dx$ = neperiano + arco tangente $M \neq 0$, ax^2+bx+c irreducible	

Propiedades de las Integrales		
Integral de la suma	$\int [f(x) \pm g(x)] dx = \int f(x) dx \pm \int g(x) dx$	
Integral con una cte.	$\int k \cdot f(x) dx = k \cdot \int f(x) dx$	
Integración por simple Inspección	$\int g'(x) \cdot [g(x)]^r dx = \frac{1}{r+1} [g(x)]^{r+1} + K$	$\int \frac{g'(x)}{g(x)} dx = \ln\lvert g(x)\rvert + K$
Integración por Partes	$\int u \cdot dv = u \cdot v - \int v \cdot du$	
Regla de Barrow	$\int_b^a f(x) dx = g(a) - g(b) = \left[g(x)\right]_b^a$	