Integrales inmediatas

$\int x^{\alpha}\,dx = \frac{x^{\alpha+1}}{\alpha+1} + C\,,\quad \text{si } \alpha \neq -1$	$\int (f(x))^{\alpha}\, f'(x)\,dx = \frac{(f(x))^{\alpha+1}}{\alpha+1} + C\,,\quad \text{si } \alpha \neq -1$
$\int \frac{1}{2\sqrt{x}}\,dx = \sqrt{x} + C$	$\int \frac{f'(x)}{2\sqrt{f(x)}}\,dx = \sqrt{f(x)} + C$
$\int \frac{1}{x}\,dx = \ln\lvert x\rvert + C$	$\int \frac{f'(x)}{f(x)}\,dx = \ln\lvert f(x)\rvert + C$
$\int a^{x}\,dx = \frac{a^{x}}{\ln a} + C,\quad \text{si } a > 0$	$\int a^{f(x)}\, f'(x)\,dx = \frac{a^{f(x)}}{\ln a} + C,\quad \text{si } a > 0$
$\int e^{x}\,dx = e^{x} + C$	$\int e^{f(x)}\, f'(x)\,dx = e^{f(x)} + C$
$\int \text{sen}x\,dx = -\cos x + C$	$\int f'(x)\,\text{sen}f(x)\,dx = -\cos f(x) + C$
$\int \cos x\,dx = \text{sen}x + C$	$\int f'(x)\cos f(x)\,dx = \text{sen}f(x) + C$
$\int \frac{1}{\cos^2 x}\,dx = \int (1+\text{tg}^2 x)\,dx = \text{tg}x + C$	$\int \frac{f'(x)}{\cos^2 f(x)}\,dx = \int f'(x)(1+\text{tg}^2 f(x))\,dx = \text{tg}f(x) + C$
$\int \frac{1}{\text{sen}^2 x}\,dx = \int (1+\text{cotg}^2 x)\,dx =$ $= -\text{cotg}x + C$	$\int \frac{f'(x)}{\text{sen}^2 f(x)}\,dx = \int f'(x)(1+\text{cotg}^2 f(x))\,dx =$ $= -\text{cotg}f(x) + C$
$\int \frac{1}{\sqrt{1-x^2}}\,dx = \text{arcsen}f(x) + C$	$\int \frac{f'(x)}{\sqrt{1-f(x)^2}}\,dx = \text{arcsen}\, f(x) + C$
$\int \frac{1}{1+x^2}\,dx = \text{arctg}x + C$	$\int \frac{f'(x)}{1+f(x)^2}\,dx = \text{arctg}\, f(x) + C$

Nota: Puede comprobarse la validez de estás fórmulas por derivación (la derivada del segundo miembro de la igualdad coincide con el integrando del primero)