Primitivas Inmediatas

Inmediatas	Versión general
$\int x^m\,dx = \dfrac{x^{m+1}}{m+1} + C \quad (m \neq -1)$	$\int g(x)^m\, g'(x)\,dx = \dfrac{g(x)^{m+1}}{m+1} + C \quad (m \neq -1)$
$\int \dfrac{dx}{x} = \log\lvert x\rvert + C$	$\int \dfrac{g'(x)}{g(x)}\,dx = \log\lvert g(x)\rvert + C$
$\int e^x\,dx = e^x + C$	$\int e^{g(x)}\, g'(x)\,dx = e^{g(x)} + C$
$\int a^x\,dx = \dfrac{a^x}{\log a} + C \quad (a > 0, a \neq 1)$	$\int a^{g(x)}\, g'(x)\,dx = \dfrac{a^{g(x)}}{\log a} + C \quad (a > 0, a \neq 1)$
$\int \operatorname{sen} x\,dx = -\cos x + C$	$\int \operatorname{sen}(g(x))\, g'(x)\,dx = -\cos(g(x)) + C$
$\int \cos x\,dx = \operatorname{sen} x + C$	$\int \cos(g(x))\, g'(x) = \operatorname{sen}(g(x)) + C$
$\int \tan x\,dx = -\log\lvert\cos x\rvert + C$	$\int \tan(g(x))\, g'(x)\,dx = -\log\lvert\cos(g(x))\rvert + C$
$\int \operatorname{cotan} x\,dx = \log\lvert\operatorname{sen} x\rvert + C$	$\int \operatorname{cotan}(g(x))\, g'(x)\,dx = \log\lvert\operatorname{sen}(g(x))\rvert + C$
$\int \sec^2 x\,dx = \tan x + C$	$\int \sec^2(g(x))\, g'(x)\,dx = \tan(g(x)) + C$
$\int \operatorname{cosec}^2 x\,dx = -\operatorname{cotan} x + C$	$\int \operatorname{cosec}^2(g(x))\, g'(x)\,dx = -\operatorname{cotan}(g(x)) + C$
$\int \dfrac{dx}{\sqrt{1-x^2}} = \operatorname{arcsen} x + C$	$\int \dfrac{g'(x)}{\sqrt{1-g(x)^2}} = \operatorname{arcsen}(g(x)) + C$
$\int \dfrac{dx}{1+x^2} = \arctan x + C$	$\int \dfrac{g'(x)}{1+g(x)^2} = \arctan(g(x)) + C$
$\int \operatorname{senh} x\,dx = \cosh x + C$	$\int \operatorname{senh}(g(x))\, g'(x)\,dx = \cosh(g(x)) + C$
$\int \cosh x\,dx = \operatorname{senh} x + C$	$\int \cosh(g(x))\, g'(x)\,dx = \operatorname{senh}(g(x)) + C$

Ejercicios:

Calcular las primitivas siguientes:

$$\int \frac{x^2}{\sqrt[4]{x^3+2}}\,dx\ ,\ \int \sqrt{\cos x}\,\operatorname{sen} x\,dx\ ,\ \int \frac{x^2}{1-2x^3}\,dx\ ,\ \int \frac{dx}{x\log x}\ ,$$

$$\int x\,e^{ax^2+b}\,dx\ \ (a,b\in\mathbb{R})\ ,\ \int a^{2x}\,dx\ \ (a\in\mathbb{R}^+)\ ,\ \int \frac{dx}{1+e^x}$$

$$\int \frac{1+\operatorname{sen} x}{\cos^2 x}\,dx\ ,\ \int \frac{dx}{\operatorname{sen}^2 x}\ ,\ \int e^x\cos(e^x)\,dx$$

$$\int \frac{x^2}{\sqrt{1-x^6}}\,dx\ ,\ \int \frac{x}{x^4+3}\,dx\ ,\ \int \frac{dx}{\sqrt{20+8x-x^2}}\ .$$