

TAULA DE PRIMITIVES

$\int x^n dx = \frac{x^{n+1}}{n+1} + C \quad n \in \mathbb{R} \text{ i } n \neq -1$	$\int e^x dx = e^x + C$
$\int \frac{1}{x} dx = \ln x + C$	$\int a^x dx = \frac{a^x}{\ln a} + C \quad a > 0 \text{ i } a \neq 1$
$\int \sin x dx = -\cos x + C$	$\int \cos x dx = \sin x + C$
$\int \frac{1}{\sqrt{1-x^2}} dx = \arcsin x + C$	$\int \frac{-1}{\sqrt{1-x^2}} dx = \arccos x + C$
$\int \frac{1}{\cos^2 x} dx = \tan x + C$	$\int \frac{1}{\sin^2 x} dx = -\cotan x + C$
$\int \frac{1}{\sin x} dx = \ln \left \tan \frac{x}{2} \right + C$	$\int \frac{1}{\cos x} dx = \ln \left \tan \left(\frac{x}{2} + \frac{\pi}{4} \right) \right + C$
<i>Suma</i>	<i>Producte per un escalar</i>
$\int (f(x) + g(x)) dx = \int f(x) dx + \int g(x) dx$	$\int kf(x) dx = k \int f(x) dx \quad k \in \mathbb{R}$
<i>Primitives quasi immediates</i>	
$\int g'(u(x)) \cdot u'(x) dx = g(u(x)) + C$	
<i>Integració per parts</i>	
$\int f(x)g'(x) dx = f(x)g(x) - \int f'(x)g(x) dx$	
<i>Integració per canvi de variable</i>	
$x = u(t) \rightarrow \frac{dx}{dt} = u'(t) \rightarrow dx = u'(t)dt$	
$\int f(x) dx = \int f(u(t))u'(t) dt$	