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Integrales exponenciales

$$\int a^x dx = \frac{a^x}{ln\ a} + c$$

$$\int e^x dx = e^x + c$$

$$\int a^u \cdot u' dx = \frac{a^u}{ln\ a} + c$$

$$\int e^u \cdot u' dx = e^u + c$$

Integrales logaritmicas

$$\int \frac{1}{x} dx = ln\ x + c$$

$$\int \frac{u'}{u} dx = ln\ u + c$$

Integrales de las funciones hiperbólicas

Integral	Ejemplo
$\int \text{sh}\ x \ dx = \text{ch}\ x + C$	$\int 2\ \text{sh}(2x)\ dx = \text{ch}(2x) + C$
$\int \text{ch}\ u \ du = \text{sh}\ u + C$	$\int 2x\ \text{ch}(x^2)\ dx = \text{sh}(x^2) + C$
$\int \text{th}\ u \ du = \text{Ln}(\text{ch}\ u) + C$	$\int 3\ \text{th}(3x)\ dx = \text{Ln}[\text{ch}(3x)] + C$
$\int \text{coth}\ u \ du = \text{Ln}(\text{sh}\ u) + C$	$\int \cos x\ \text{coth}(\text{sen}\ x)\ dx = \text{Ln}[\text{sh}(\text{sen}\ x)] + C$
$\int \text{sech}\ u \ du = \text{arc sen}(\text{th}\ u) + C$	$\int 4x\ \text{sech}(2x^2)\ dx = \text{arc sen}[\text{th}(2x^2)] + C$
$\int \text{cosech}\ u \ du = \text{Ln}\left(\text{th}\ \frac{u}{2}\right) + C$	$\int 2x\ \text{cosech}(x^2)\ dx = \text{Ln}\left[\text{th}\left(\frac{x^2}{2}\right)\right] + C$
$\int \text{sech}^2\ u \ du = \text{th}\ u + C$	$\int 3x^2\ \text{sech}^2(x^3)\ dx = \text{th}(x^3) + C$
$\int \text{cosech}^2\ u \ du = -\ \text{coth}\ u + C$	$\int 7\ \text{cosech}^2(7x+1)\ dx = -\ \text{coth}(7x+1) + C$
$\int \text{sech}\ u\ \text{th}\ u\ du = -\ \text{sech}\ u + C$	$\int 2x\ \text{sech}(x^2-3)\ \text{th}(x^2-3)\ dx = -\text{sech}(x^2-3)$

$\int \text{cosech}\, u \ \coth u \ du = -\text{cosech}\, u + C$	$\int e^x \ \text{cosech}\left(e^x\right) \ \coth\left(e^x\right) \ dx = -\text{cosech}\left(e^x\right) + C$
$\int \frac{du}{u^2 - a^2} = \frac{1}{2a} \text{Ln} \left\lvert \frac{u-a}{u+a} \right\rvert = -\frac{1}{a} \text{arg coth} \frac{u}{a} + C$	$\int \frac{2}{(2x)^2 - 9} dx = \frac{1}{6} \text{Ln} \left\lvert \frac{2x-3}{2x+3} \right\rvert = -\frac{1}{3} \text{arg coth} \frac{2x}{3}$
$\int \frac{du}{a^2 - u^2} = \frac{1}{2a} \text{Ln} \left\lvert \frac{a+u}{a-u} \right\rvert = \frac{1}{a} \text{arg th} \frac{u}{a} + C$	$\int \frac{3}{25 - (3x)^2} dx = \frac{1}{10} \text{Ln} \left\lvert \frac{5+3x}{5-3x} \right\rvert = \frac{1}{5} \text{arg th} \frac{3x}{5}$
$\int \frac{du}{\sqrt{u^2 - a^2}} = \text{Ln} \left\lvert u + \sqrt{u^2 - a^2} \right\rvert + C$ $\int \frac{du}{\sqrt{u^2 + a^2}} = \text{Ln} \left\lvert u + \sqrt{u^2 + a^2} \right\rvert + C = \text{arg sh} \frac{u}{a} + C$	$\int \frac{\cos x}{\sqrt{(\text{sen}\, x)^2 - 1}} dx = \text{Ln} \left\lvert \text{sen}\, x + \sqrt{(\text{sen}\, x)^2 - 1} \right\rvert$ $\int \frac{\cos x}{\sqrt{(\text{sen}\, x)^2 + 1}} dx = \text{arg sh} \ (\text{sen}\, x) + C$
$\int \frac{du}{u\sqrt{u^2 + a^2}} = -\frac{1}{a} \text{Ln} \left\lvert \frac{a + \sqrt{u^2 + a^2}}{u} \right\rvert + C$ $\int \frac{du}{u\sqrt{u^2 - a^2}} = -\frac{1}{a} \text{Ln} \left\lvert \frac{a + \sqrt{u^2 - a^2}}{u} \right\rvert + C = \frac{1}{a} \text{arc sec} \left\lvert \frac{u}{a} \right\rvert + C$	$\int \frac{2}{2x\sqrt{(2x)^2 + 4}} dx = -\frac{1}{2} \text{Ln} \left\lvert \frac{2 + \sqrt{(2x)^2 + 4}}{2x} \right\rvert + C$ $\int \frac{2}{2x\sqrt{(2x)^2 - 4}} dx = \frac{1}{2} \text{arc sec} \lvert x \rvert + C$
$\int \frac{du}{u\sqrt{a^2 - u^2}} = -\frac{1}{a} \text{Ln} \left\lvert \frac{a + \sqrt{a^2 - u^2}}{u} \right\rvert + C$	$\int \frac{-\text{sen}\, x}{\cos x \sqrt{25 - (\cos x)^2}} dx = -\frac{1}{5} \text{Ln} \left\lvert \frac{5 + \sqrt{25 - (\cos x)^2}}{(\cos x)^2} \right\rvert + C$