EXPONENCIALES Y LOGARITMOS

$$\int e^u\,du = e^u + c$$
$$\int ue^u\,du = ue^u - e^u + c$$
$$\int u^n e^u du = u^n e^u - n\int u^{n-1} e^u du$$
$$\int (\ln u)^2\,du = u(\ln u)^2 - 2u\ln u + 2u + c$$
$$\int u^n \ln u\,du = u^{n+1}\left[\frac{\ln u}{n+1} - \frac{1}{(n+1)^2}\right] + c$$
$$\int p^u\,du = \frac{p^u}{\ln p} + c$$
$$\int u^2 e^u du = u^2 e^u - 2ue^u + 2e^u + c$$
$$\int \ln u\,du = u\ln u - u + c$$
$$\int u\ln u\,du = \frac{1}{2}u^2\ln u - \frac{1}{4}u^2 + c$$
$$\int \frac{du}{u\ln u} = \ln|\ln u| + c$$

SENO Y COSENOS

$$\int sen\,udu = -\cos u + c$$
$$\int sen^2\,udu = \frac{1}{2}u - \frac{1}{4}sen\,2u + c$$
$$\int sen^3\,udu = \frac{1}{3}cos^3 u - \cos u + c$$
$$\int sen^n\,udu = -\frac{sen^{n-1}u\,cos\,u}{n} + \frac{n-1}{n}\int sen^{n-2}\,udu$$
$$\int cos^n\,udu = -\frac{cos^{n-1}u\,sen\,u}{n} + \frac{n-1}{n}\int cos^{n-2}\,udu$$
$$\int u\,sen\,u\,du = -u\cos u + sen\,u + c$$
$$\int u^n\,sen\,u\,du = -u^n\cos u + n\int u^{n-1}\cos u\,du$$
$$\int sen\,mu\ sen\,nu\,du = -\frac{sen\,[(m+n)u]}{2(m+n)} + \frac{sen[(m-n)u]}{2(m-n)} + c, m^2 \neq n^2$$
$$\int cos\,mu\ cos\,nu\,du = \frac{sen\,[(m+n)u]}{2(m+n)} + \frac{sen[(m-n)u]}{2(m-n)} + c, m^2 \neq n^2$$
$$\int sen\,mu\ cos\,nu\,du = -\frac{cos\,[(m+n)u]}{2(m+n)} - \frac{cos[(m-n)u]}{2(m-n)} + c, m^2 \neq n^2$$
$$\int e^{au}\,sen\,bu\,du = \frac{e^{au}}{a^2+b^2}(a\,sen\,bu - b\cos bu) + c$$
$$\int e^{au}\cos bu\,du = \frac{e^{au}}{a^2+b^2}(a\cos bu - b\,\mathrm{sen}\,bu) + c$$
$$\int \cos u\,du = sen\,u + c$$
$$\int cos^2\,udu = \frac{1}{2}u + \frac{1}{4}sen\,2u + c$$
$$\int cos^3\,udu = sen - \frac{1}{3}sen^3 u + c$$
$$\int u\cos u\,du = u\,\mathrm{sen}\,u + cos\,u + c$$
$$\int u^n\cos u\,du = u^n\,\mathrm{sen}\,u - n\int u^{n-1}\,\mathrm{sen}\,u\,du$$

TANGENTES Y SECANTES

$$\int \tan u\,du = \ln|sen\,u| + c$$
$$\int tan^2 u\,du = \tan u - u + c$$
$$\int \sec u\tan u\,du = \sec u + c$$
$$\int sec^3\,u\,du = -\frac{1}{2}\csc u\cot u + \frac{1}{2}\ln|\csc u - \cot u| + c$$
$$\int tan^n u\,du = \frac{tan^{n-1}u}{n-1} - \int tan^{n-2}du$$
$$\int \sec u\,du = \ln|sec\,u + \tan u| + c$$
$$\int sec^2 u\,du = \tan u + c$$
$$\int tan^3 u\,du = \frac{1}{2}tan^2 u + ln|\cos u| + c$$
$$\int sec^n u\,du = \frac{sec^{n-2}u\,tan\,u}{n-1} + \frac{n+2}{n-1}\int sec^{n-2}u\,du$$

COTANGENTES Y SECANTES

$$\int \cot u\,du = \ln|sen\,u| + c$$
$$\int cot^2 u\,du = -\cot u - u + c$$
$$\int \csc u\cot u\,du = -\csc u + c$$
$$\int csc^3 u\,du = -\frac{1}{2}\csc u\cot u + \frac{1}{2}\ln|\csc u - \cot u| + c$$
$$\int cot^n u\,du = -\frac{cot^{n-1}u}{n-1} - \int cot^{n-2}u\,du$$
$$\int \csc^n u\,du = -\frac{csc^{n-2}u\,cot\,u}{n-1} + \frac{n-2}{n-1}\int csc^{n-2}u\,du$$
$$\int \csc u\,du = \ln|csc\,u - \cot u| + c$$
$$\int csc^2 u\,du = -\cot u + c$$
$$\int cot^3 u\,du = -\frac{1}{2}cot^2 u - ln|\mathrm{sen}\,u| + c$$

FUNCIONES TRIGONOMÉTRICAS INVERSAS

$$\int arcsen\,u\,du = u\,arcsen\,u + \sqrt{1-u^2} + c$$
$$\int arccos\,u\,du = u\,arccos\,u - \sqrt{1-u^2} + c$$
$$\int \arctan u\,du = u\arctan u - \frac{1}{2}\ln(1+u^2) + c$$
$$\int \mathrm{arccot}\,u\,du = u\,\mathrm{arccot}\,u + \frac{1}{2}\ln(1+u^2) + c$$
$$\int \mathrm{arcsec}\,u\,du = u\,\mathrm{arcsec}\,u - \ln\left|u + \sqrt{u^2-1}\right| + c$$
$$\int \mathrm{arccsc}\,u\,du = u\,\mathrm{arccsc}\,u + \ln\left|u + \sqrt{u^2-1}\right| + c$$
$$\int u\,\mathrm{arcsen}\,u\,du = \frac{1}{4}(2u^2-1)\arccos u + u\sqrt{1-u^2} + c$$
$$\int u\arctan u\,du = \frac{1}{2}(u^2+1)\arctan u - \frac{1}{2}u + c$$
$$\int u\arccos u\,du = \frac{1}{4}(2u^2-1)\arccos u - u\sqrt{1-u^2} + c$$
$$\int u^n\,arcsen\,u\,du = \frac{1}{n+1}\left[u^{n+1}\,arcsen\,u - \int \frac{u^{n+1}du}{\sqrt{1-u^2}}\right], n \neq -1$$
$$\int u^n\,arccos\,u\,du = \frac{1}{n+1}\left[u^{n+1}\,arccos\,u + \int \frac{u^{n+1}du}{\sqrt{1-u^2}}\right], n \neq -1$$
$$\int u^n\,arctan\,u\,du = \frac{1}{n+1}\left[u^{n+1}\,arctan\,u - \int \frac{u^{n+1}du}{\sqrt{1+u^2}}\right], n \neq -1$$

$\sqrt{a^2+u^2}, a>0$

$$\int \frac{du}{a^2+u^2} = \frac{1}{a}\arctan\left(\frac{u}{a}\right) + c$$

$$\int \frac{du}{\sqrt{a^2+u^2}} = \ln\left|u+\sqrt{a^2+u^2}\right| + c$$

$$\int \sqrt{a^2+u^2}\,du = \frac{u}{2}\sqrt{a^2+u^2} + \frac{a^2}{2}\ln\left|u+\sqrt{a+u^2}\right| + c$$

$$\int u^2\sqrt{a^2+u^2}\,du = \frac{u}{8}(a^2+2u^2)\sqrt{a^2+u^2} - \frac{a^4}{8}$$
$$\ln\left|u+\sqrt{a^2+u^2}\right| + c$$

$$\int \frac{\sqrt{a^2+u^2}}{u}du = \sqrt{a^2+u^2} - a\ln\left|\frac{a+\sqrt{a^2+u^2}}{u}\right| + c$$

$$\int \frac{\sqrt{a^2+u^2}}{u^2}du = -\frac{\sqrt{a^2+u^2}}{u} + \ln\left|u+\sqrt{a^2+u^2}\right| + c$$

$$\int \frac{u^2du}{\sqrt{a^2+u^2}} = \frac{u}{2}\sqrt{a^2+u^2} - \frac{a^2}{2}\ln\left|u+\sqrt{a^2+u^2}\right| + c$$

$$\int \frac{du}{u\sqrt{a^2+u^2}} = -\frac{1}{a}\ln\left|\frac{\sqrt{a^2+u^2}+a}{u}\right| + c$$

$$\int \frac{du}{u^2\sqrt{a^2+u^2}} = -\frac{\sqrt{a^2+u^2}}{a^2u} + c$$

$$\int \frac{du}{(a^2+u^2)^{3/2}} = \frac{u}{a^2\sqrt{a^2+u^2}} + c$$

$\sqrt{a^2-u^2}, a>0$

$$\int \frac{du}{\sqrt{a^2-u^2}} = arcsen\,\frac{u}{a} + c$$

$$\int \sqrt{a^2-u^2}\,du = \frac{u}{2}\sqrt{a^2-u^2} + \frac{a^2}{2}arcsen\,\frac{u}{a} + c$$

$$\int u^2\sqrt{a^2-u^2}\,du = \frac{u}{8}(2u^2-a^2)\sqrt{a^2-u^2} - \frac{a^4}{8}arcsen\,\frac{u}{a} + c$$

$$\int \frac{\sqrt{a^2-u^2}}{u}du = \sqrt{a^2-u^2} - a\ln\left|\frac{a+\sqrt{a^2-u^2}}{u}\right| + c$$

$$\int \frac{\sqrt{a^2-u^2}}{u}du = -\frac{1}{a}\sqrt{a^2-u^2} - arcsen\,\frac{u}{a} + c$$

$$\int \frac{u^2du}{\sqrt{a^2-u^2}} = -\frac{u}{2}\sqrt{a^2-u^2} + \frac{a^2}{2}arcsen\,\frac{u}{a} + c$$

$$\int \frac{du}{u\sqrt{a^2-u^2}} = -\frac{1}{a}\ln\left|\frac{a+\sqrt{a^2-u^2}}{u}\right| + c$$

$$\int \frac{du}{u^2\sqrt{a^2-u^2}} = -\frac{1}{a^2u}\sqrt{a^2-u^2} + c$$

$$\int (a^2-u^2)^{3/2}\,du = -\frac{u}{8}(2u^2-5a^2)\sqrt{a^2-u^2} + \frac{3a^4}{8}arcsen\,\frac{u}{a} + c$$

$$\int \frac{du}{(a^2-u^2)^{3/2}} = \frac{u}{a^2\sqrt{a^2-u^2}} + c$$

$$\int \frac{du}{a^2-u^2}du = \frac{1}{2a}\ln\left|\frac{u+a}{u-a}\right| + c$$

$\sqrt{u^2-a^2}, a>0$

$$\int \frac{du}{u^2-a^2} = \frac{1}{2a}\ln\left|\frac{u-a}{u+a}\right| + c$$

$$\int \frac{du}{u\sqrt{u^2-a^2}} = \frac{1}{a}arcsec\frac{|u|}{a} + c$$

$$\int \frac{\sqrt{u^2-a^2}}{u}du = \sqrt{u^2-a^2} - arcsec\,\frac{u}{a} + c$$

$$\int \sqrt{u^2-a^2}\,du = \frac{u}{a}\sqrt{u^2-a^2} - \frac{a^2}{2}\ln\left|u+\sqrt{u^2-a^2}\right| + c$$

$$\int u^2\sqrt{u^2-a^2}\,du = \frac{u}{8}(2u^2-a^2)\sqrt{u^2-a^2} - \frac{a^4}{8}\ln\left|u+\sqrt{u^2-a^2}\right| + c$$

$$\int \frac{\sqrt{u^2-a^2}}{u^2}du = -\frac{\sqrt{u^2-a^2}}{u} + \ln\left|u+\sqrt{u^2-a^2}\right| + c$$

$$\int \frac{u^2du}{\sqrt{u^2-a^2}} = \frac{u}{2}\sqrt{u^2-a^2} + \frac{a^2}{2}\ln\left|u+\sqrt{u^2-a^2}\right| + c$$

$$\int \frac{du}{u^2\sqrt{u^2-a^2}} = \frac{\sqrt{u^2-a^2}}{a^2u} + c$$

$$\int \frac{du}{(u^2-a^2)^{3/2}} = -\frac{u}{a^2\sqrt{u^2-a^2}} + c$$

$$\int \frac{u^2du}{(u^2-a^2)^{3/2}} = \frac{-u}{\sqrt{u^2-a^2}} + \ln\left|u+\sqrt{u^2-a^2}\right| + c$$

$a+bu, \sqrt{a+bu}$

$$\int \frac{u\,du}{a+bu} = \frac{1}{b^2}(a+bu-a\ln|a+bu|) + c$$

$$\int \frac{u^2\,du}{a+bu} = \frac{1}{2b^3}[(a+bu)^2-4a(a+bu)+2a^2\ln|a+bu|] + c$$

$$\int \frac{du}{u(a+bu)} = \frac{1}{a}\ln\left|\frac{u}{a+bu}\right| + c$$

$$\int \frac{du}{u^2(a+bu)} = -\frac{1}{au} + \frac{b}{a^2}\ln\left|\frac{a+bu}{u}\right| + c$$

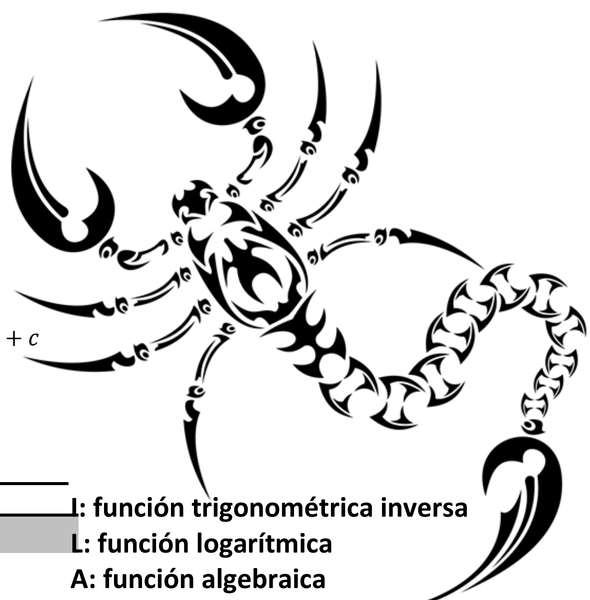
$$\int \frac{u\,du}{(a+bu)^2} = \frac{a}{b^2(a+bu)} + \frac{1}{b^2}\ln|a+bu| + c$$

$$\int \frac{du}{u(a+bu)^2} = \frac{1}{a(a+bu)} - \frac{1}{a^2}\ln\left|\frac{a+bu}{u}\right| + c$$

$$\int \frac{u^2\,du}{(a+bu)^2} = \frac{1}{b^3}\left(a+bu-\frac{a^2}{a+bu}-2a\ln|a+bu|\right) + c$$

$$\int \frac{u\,du}{\sqrt{a+bu}} = \frac{2}{3b^2}(bu-2a)\sqrt{a+bu} + c$$

$$\int u\sqrt{a+bu}\,du = \frac{2}{15b^2}(3bu-2a)(a+bu)^{3/2} + c$$



I: función trigonométrica inversa
L: función logarítmica
A: función algebraica
T: función trigonométrica
E: función exponencial