

TABLA DE DERIVADAS E INTEGRALES

FUNCIÓN	DERIVADA	INTEGRAL
$y = c$	$dy = 0$	$\int y = c \cdot x$
$y = c \cdot x$	$dy = c$	$\int y = c \cdot \frac{x^2}{2}$
$y = x^n$	$dy = n \cdot x^{(n-1)}$	$\int y = \frac{x^{(n+1)}}{n+1}$
$y = x^{-n}$	$dy = \frac{-1}{n \cdot x^{n+1}}$	$\int y = \frac{x^{-n+1}}{-n+1}$
$y = x^{\frac{1}{2}}$	$dy = \frac{1}{2 \cdot x^{\frac{1}{2}}}$	$\int y = \frac{2 \cdot x^{\frac{3}{2}}}{3}$
$y = x^{\frac{a}{b}}$	$dy = \frac{a \cdot x^{(\frac{a}{b}-1)}}{b}$	$\int y = \frac{x^{(\frac{a}{b}+1)}}{(\frac{a}{b}+1)}$
$y = \frac{1}{x}$	$dy = \frac{-1}{x^2}$	$\int y = \ln x$
$y = \operatorname{sen} x$	$dy = \cos x$	$\int y = -\cos x$
$y = \cos x$	$dy = -\operatorname{sen} x$	$\int y = \sin x$
$y = \tan x$	$dy = \frac{1}{\cos^2 x}$	$\int y = -\ln \cos x$
$y = \cot x$	$dy = \frac{-1}{\operatorname{sen}^2 x}$	$\int y = \ln \operatorname{sen} x$
$y = \sec x$	$dy = \frac{\operatorname{sen} x}{\cos^2 x}$	$\int y = \ln \tan \left(\frac{1}{2} \cdot x\right)$
$y = \csc x$	$dy = \frac{-\cos x}{\operatorname{sen}^2 x}$	$\int y = \ln \left(\cos \frac{x}{1-\operatorname{sen} x}\right)$
$y = \operatorname{sen}^{-1} x$	$dy = \frac{1}{(1-x^2)^{\frac{1}{2}}}$	$\int y = x \cdot \operatorname{sen}^{-1}(x) + (1-x^2)^{\frac{1}{2}}$
$y = \cos^{-1} x$	$dy = \frac{-1}{(1-x^2)^{\frac{1}{2}}}$	$\int y = x \cdot \cos^{-1}(x) - (1-x^2)^{\frac{1}{2}}$
$y = \tan^{-1} x$	$dy = \frac{1}{1+x^2}$	$\int y = x \cdot \tan^{-1}(x) - \frac{1}{2} \cdot \ln(1+x^2)$
$y = \cot^{-1} x$	$dy = \frac{-1}{1+x^2}$	$\int y = x \cdot \cot^{-1}(x) + \frac{1}{2} \cdot \ln(1+x^2)$
$y = \sec^{-1} x$	$dy = \frac{1}{x \cdot (x^2-1)^{\frac{1}{2}}}$	-
$y = \csc^{-1} x$	$dy = \frac{-1}{x \cdot (x^2-1)^{\frac{1}{2}}}$	-
$y = \operatorname{senh} x$	$dy = \cosh x$	$\int y = -\cosh x$
$y = \cosh x$	$dy = \operatorname{senh} x$	$\int y = \sinh x$
$y = \tanh x$	$dy = \operatorname{sech}^2 x$	$\int y = \ln \cosh x$
$y = \coth x$	$dy = -\operatorname{csch}^2 x$	$\int y = \ln \operatorname{senh} x$
$y = \operatorname{sech} x$	$dy = -(\operatorname{sech} x) \cdot (\tanh x)$	-
$y = \operatorname{csch} x$	$dy = -(\operatorname{csch} x) \cdot (\coth x)$	-
$y = \ln x$	$dy = \frac{1}{x}$	$\int y = x \cdot \ln(x) - x$
$y = \log_a x$	$dy = \frac{1}{x \cdot \ln a}$	$\int y = x \cdot \log_a(x) - \frac{1}{\ln a}$
$y = e^x$	$dy = e^x$	$\int y = e^x$
$y = a^x$	$dy = a^x \cdot \ln a$	$\int y = \frac{a^x}{\ln a}$
$y = x^x$	$dy = x^x \cdot (\ln(x) + 1)$	-
$y = e^u$	$dy = e^u \cdot u'$	-
$y = u \cdot v$	$dy = u' \cdot v + v' \cdot u$	$\int y = \int u \cdot dv + \int v \cdot du$
$y = \frac{u}{v}$	$dy = \frac{u' \cdot v - v' \cdot u}{v^2}$	-
$y = u^v$	$dy = u^v \cdot (v' \cdot \ln(u) + v \cdot \frac{u'}{u})$	-
$y = \log_u v$	$dy = \frac{v' \cdot u \cdot \ln(u) - u' \cdot v \cdot \ln(v)}{v \cdot u \cdot \ln^2 u}$	-