

PRIMITIVAÇÃO

ALGUMAS SUBSTITUIÇÕES ACONSELHADAS

Função com	$x = \varphi(t)$	$\varphi'(t)$	$t = \varphi^{-1}(x)$
$\sqrt{ax+b}$	$\frac{t^2-b}{a}$	$\frac{2t}{a}$	$\sqrt{ax+b}$
$\sqrt{a^2-x^2}$	$a \operatorname{sen} t$	$a \cos t$	$\operatorname{arcsen}\left(\frac{x}{a}\right)$
$\sqrt{a^2+x^2}$	$a \operatorname{tg} t$	$a \sec^2 t = \frac{a}{\cos^2 t}$	$\operatorname{arctg}\left(\frac{x}{a}\right)$
e^x	$\ln t$	$\frac{1}{t}$	e^x
$\ln x$ e $\frac{1}{x}$ a multiplicar	e^t	e^t	$\ln x$
$\operatorname{sen} x$ e $\cos x$ a multiplicar	$\operatorname{arc} \operatorname{sen} t$	$\frac{1}{\sqrt{1-t^2}}$	$\operatorname{sen} x$
$\cos x$ e $\operatorname{sen} x$ a multiplicar	$\operatorname{arc} \cos t$	$-\frac{1}{\sqrt{1-t^2}}$	$\cos x$
$\operatorname{sen} x$ e $\cos x$	$2\operatorname{arctg} t$	$\frac{2}{1+t^2}$	$\operatorname{tg} \frac{x}{2}$
$\operatorname{tg} x$	$\operatorname{arctg} t$	$\frac{1}{1+t^2}$	$\operatorname{tg} x$
$\operatorname{cotg} x$	$\operatorname{arc} \cot g t$	$-\frac{1}{1+t^2}$	$\operatorname{cotg} x$
$x, \left(\frac{ax+b}{cx+d}\right)^{\frac{p_1}{q_1}}, \dots, \left(\frac{ax+b}{cx+d}\right)^{\frac{p_n}{q_n}}$	$\frac{dt^q-b}{a-ct^q}$, com $q = m.m.c\left(\frac{p_1}{q_1}, \dots, \frac{p_n}{q_n}\right)$	$\frac{(ad-bc)qt^{q-1}}{(a-ct^q)^2}$	$\sqrt[q]{\frac{ax+b}{cx+d}}$