Fórmulas trigonométricas

$\sec x = \frac{1}{\cos x}$, $\csc x = \frac{1}{\sin x}$	$\sin\frac{\pi}{6} = \frac{1}{2}$, $\sin\frac{\pi}{3} = \frac{\sqrt{2}}{2}$	$\arccos 0 = \frac{\pi}{2}$
$\sin 2x = 2\sin x\cos x$	$\sin 0 = 0$, $\cos 0 = 1$, $\tan 0 = 0$	$\arccos 1 = 0$
$\cos 2x = 1 - 2\sin^2 x$	$\cos\frac{\pi}{6} = \frac{\sqrt{3}}{2}$, $\tan\frac{\pi}{6} = \frac{\sqrt{3}}{3}$	$\arctan(\pm\infty) = \pm\frac{\pi}{2}$
$\cos 2x = 2\cos^2 x - 1$	$\sin\frac{\pi}{6} = \frac{\sqrt{3}}{2}$, $\sin\frac{\pi}{2} = 1$	$\arctan(-1) = -\frac{\pi}{4}$
$1 + \tan^2 x = \frac{1}{\cos^2 x}$	$\cos\frac{\pi}{3} = \frac{1}{2}$, $\tan\frac{\pi}{3} = \sqrt{3}$	$\arctan 0 = 0$
$1 + \cot^2 x = \frac{1}{\sin^2 x}$	$\cos\frac{\pi}{2} = 0$, $\tan\frac{\pi}{2} = \infty$	$\arcsin(-1) = \frac{3\pi}{2}$
$\sin^2 x + \cos^2 x = 1$	$\arcsin 0 = 0$,	$\arctan 1 = \frac{\pi}{4}$
$\cos\frac{\pi}{4} = \frac{\sqrt{2}}{2}, \tan\frac{\pi}{4} = 1$	$\arccos(-1) = \pi$;	$\arcsin 1 = \frac{\pi}{2}$

$\sin(\arcsin x) = \cos(\arccos x) = x$	$\tan(\arctan x) = \cot(\operatorname{arccot} x) = x$
$\sin(\arccos x) = \cos(\arcsin x) = \sqrt{1-x^2}$	$\tan(\arcsin x) = \cot(\arccos x) = \frac{x}{\sqrt{1-x^2}}$
$\sin(\arctan x) = \cos(\operatorname{arccot} x) = \frac{x}{\sqrt{1+x^2}}$	$\tan(\arccos x) = \cot(\arcsin x) = \frac{\sqrt{1-x^2}}{x}$
$\sin(\operatorname{arccot} x) = \cos(\arctan x) = \frac{1}{\sqrt{1+x^2}}$	$\tan(\operatorname{arccot} x) = \cot(\arctan x) = \frac{1}{x}$

Outras Fórmulas

$\ln A + \ln B = \ln AB$	$\ln A - \ln B = \ln\frac{A}{B}$	$A\ln B = \ln B^A$
$\ln 1 = 0$, $\ln(+\infty) = +\infty$	$\ln e = 1$, $e^0 = 1$	$\ln 0^+ = -\infty$
$e^{-\infty} = 0$, $e^{+\infty} = +\infty$	$e^A e^B = e^{A+B}$	$\frac{e^A}{e^B} = e^{A-B}$
$(a \pm b)^2 = a^2 \pm 2ab + b^2$	$\sqrt{A+B} \neq \sqrt{A} + \sqrt{B}$	$\sqrt{A^n} = \left(\sqrt{A}\right)^n$
$\left(a^2 - b^2\right) = (a-b)(a+b)$	$\sqrt{AB} = \sqrt{A}\sqrt{B}$	$\sqrt{A/B} = \frac{\sqrt{A}}{\sqrt{B}}$
$\left(a^3 - b^3\right) = (a-b)\left(a^2 + ab + b^2\right)$	$\frac{A+B}{C} = \frac{A}{C} + \frac{B}{C}$	$\left(\sqrt{A}\right)^3 = A\sqrt{A}$
$\left(a^3 + b^3\right) = (a+b)\left(a^2 - ab + b^2\right)$	$\frac{A}{B+C} \neq \frac{A}{B} + \frac{A}{C}$	$\sqrt[m]{A^n} = A^{n/m}$

Algumas regras de derivação

$(u^n)' = nu^{n-1}u'$	$(e^u)' = u'e^u$	$(\log u)' = \frac{u'}{u}$
$(\sin u)' = u'\cos u$	$(\cos u)' = -u'\sin u$	$(\tan u)' = \frac{u'}{\cos^2 u}$
$(\arcsin u)' = \frac{u'}{\sqrt{1-u^2}}$	$(\arctan u)' = \frac{u'}{1+u^2}$	$(\cot u)' = -\frac{u'}{\sin^2 u}$
$(ku)' = ku'$	$(uv)' = u'v + uv'$	$\left(\frac{u}{v}\right)' = \frac{u'v - uv'}{v^2}$

Regras de primitivação

$$Pku = kPu \qquad Px^n = \frac{x^{n+1}}{n+1} + c$$

$$P1 = x \qquad P\frac{1}{x} = \ln|x|$$

$$Pu^n u' = \frac{u^{n+1}}{n+1} + c \qquad P\frac{u'}{u} = \log|u| + c$$

$$Pe^x = e^x \qquad Pe^u u' = e^u + c \qquad Pa^u u' = \frac{a^u}{\log a} + c$$

$$P\sin x = -\cos x \qquad P\cos x = \sin x$$

$$Pu'\sin u = -\cos u + c \qquad Pu'\cos u = \sin u + c$$

$$P\frac{u'}{\sin^2 u} = -\cot u + c \qquad P\frac{u'}{\cos^2 u} = \tan u + c$$

$$P\frac{1}{\sqrt{1-x^2}} = \arcsin x = -\arccos x + c \qquad P\frac{u'}{\sqrt{1-u^2}} = \arcsin u = -\arccos u + c$$

$$P\frac{u'}{\sqrt{a^2-u^2}} = \arcsin\frac{u}{a} = -\arccos\frac{u}{a} + c \qquad P\frac{1}{1+x^2} = \arctan x + c$$

$$P\frac{u'}{1+u^2} = \arctan u + c \qquad P\frac{u'}{a^2+u^2} = \frac{1}{a}\arctan\frac{u}{a} + c$$

$$Pu'\sec u = \log|\sec u + \tan u| + c \qquad Pu'\csc u = \log|\csc u - \cot u| + c$$

Primitivação por Partes: $\boxed{Pu'v = uv - Puv'}$

Primitivação por Substituição

Função com	$x = g(t)$	$g'(t)$	$t = g^{-1}(x)$
$\sqrt{a^2-x^2}$	$x = a\sin t$	$x' = a\cos t$	$t = \arcsin\frac{x}{a}$
$\sqrt{a^2+x^2}$	$x = a\tan t$	$x' = a\sec^2 t$	$t = \arctan\frac{x}{a}$
$\sqrt{x^2-a^2}$	$x = a\sec t$	$x' = a\sec t\tan t$	$t = \operatorname{arcsec}\frac{x}{a}$
e^{kx}	$\ln t$	$\frac{1}{t}$	e^x
$\ln^k x$	e^t	e^t	$\ln x$