FORMULÁRIO

$$\cos(a-b) = \cos(a)\cos(b) + \sin(a)\sin(b)$$

$$\sin(a-b) = \sin(a)\cos(b) - \cos(a)\sin(b)$$

$$\cos(p) + \cos(q) = 2\cos\left(\frac{p+q}{2}\right)\cos\left(\frac{p-q}{2}\right)$$

$$\sin(p) + \sin(q) = 2\sin\left(\frac{p+q}{2}\right)\cos\left(\frac{p-q}{2}\right)$$

$$\cos(a+b) = \cos(a)\cos(b) - \sin(a)\sin(b)$$

$$\sin(a+b) = \sin(a)\cos(b) + \cos(a)\sin(b)$$

$$\cos(p) - \cos(q) = -2\sin\left(\frac{p+q}{2}\right)\sin\left(\frac{p-q}{2}\right)$$

$$\sin(p) - \sin(q) = 2\cos\left(\frac{p+q}{2}\right)\sin\left(\frac{p-q}{2}\right)$$

$$\cos^2(x) - \sin^2(x) = \cos(2x)$$

$$\cos^2(x) = \frac{1+\cos(2x)}{2}$$

$$\tan^2(x) = \frac{1-\cos(2x)}{1+\cos(2x)}$$

$$\cosh(x) = \frac{e^x + e^{-x}}{2}$$

$$\cosh(-x) = \cosh(x)$$

$$\cosh^2(x) - \sinh^2(x) = 1$$

$$\arg\cosh(x) = \ln\left(x + \sqrt{x^2-1}\right)$$

$$\sinh(x) = \frac{e^x - e^{-x}}{2}$$

$$\sinh(-x) = -\sinh(x)$$

$$\cosh^2(x) + \sinh^2(x) = \cosh(2x)$$

$$\arg\sinh(x) = \ln\left(x + \sqrt{x^2+1}\right)$$

$$\tanh(x) = \frac{e^x - e^{-x}}{e^x + e^{-x}}$$

$$\tanh(-x) = -\tanh(x)$$

$$2\cosh(x)\sinh(x) = \sinh(2x)$$

$$\arg\tanh(x) = \frac{1}{2}\ln\left(\frac{1+x}{1-x}\right)$$

$D(f)$	f	$D(f')$	f'
$]-\infty,0[$	x^α	$]-\infty,0[$	$\alpha x^{\alpha-1}$
$\mathbb{R}$	e^x	$\mathbb{R}$	e^x
$\mathbb{R}\setminus\{0\}$	$\ln(\|x\|)$	$\mathbb{R}\setminus\{0\}$	$\frac{1}{x}$
$\mathbb{R}$	$\sin(x)$	$\mathbb{R}$	$\cos(x)$
$\mathbb{R}$	$\cos(x)$	$\mathbb{R}$	$-\sin(x)$
$\mathbb{R}-\{\frac{\pi}{2}+k\pi,\ k\in\mathbb{Z}\}$	$\tan(x)$	$\mathbb{R}-\{\frac{\pi}{2}+k\pi,\ k\in\mathbb{Z}\}$	$1+\tan^2(x)$
$[-1,1]$	$\arcsin(x)$	$]-1,1[$	$\frac{1}{\sqrt{1-x^2}}$
$[-1,1]$	$\arccos(x)$	$]-1,1[$	$-\frac{1}{\sqrt{1-x^2}}$
$\mathbb{R}$	$\arctan(x)$	$\mathbb{R}$	$\frac{1}{1+x^2}$
$\mathbb{R}$	$\sinh(x)$	$\mathbb{R}$	$\cosh(x)$
$\mathbb{R}$	$\cosh(x)$	$\mathbb{R}$	$\sinh(x)$
$\mathbb{R}$	$\tanh(x)$	$\mathbb{R}$	$1-\tanh^2(x)$
$\mathbb{R}$	$\arg\sinh(x)$	$\mathbb{R}$	$\frac{1}{\sqrt{1+x^2}}$
$[1,+\infty]$	$\arg\cosh(x)$	$]1,+\infty[$	$\frac{1}{\sqrt{x^2-1}}$
$]-1,1[$	$\arg\tanh(x)$	$]-1,1[$	$\frac{1}{1-x^2}$