

Tableau des dérivées usuelles :

Fonction f	Dérivée f'	Conditions
$f(x) = \lambda$ (constante)	$f'(x) = 0$	$x \in \mathbb{R}$
$f(x) = x$	$f'(x) = 1$	$x \in \mathbb{R}$
$f(x) = x^2$	$f'(x) = 2x$	$x \in \mathbb{R}$
$f(x) = x^3$	$f'(x) = 3x^2$	$x \in \mathbb{R}$
$f(x) = x^n$	$f'(x) = nx^{n-1}$	$n \in \mathbb{N}^*$ et $x \in \mathbb{R}$
$f(x) = \sqrt{x}$	$f'(x) = \frac{1}{2\sqrt{x}}$	$x \in \mathbb{R}_+^*$
$f(x) = \frac{1}{x}$	$f'(x) = -\frac{1}{x^2}$	$x \in \mathbb{R}^*$
$f(x) = \frac{1}{x^n}$	$f'(x) = -\frac{n}{x^{n+1}}$	$n \in \mathbb{N}^*$ et $x \in \mathbb{R}^*$
$f(x) = x^\alpha$	$f'(x) = \alpha x^{\alpha-1}$	$\alpha \in \mathbb{R}$, $x \in \mathbb{R}_+^*$
$f(x) = ax + b$	$f'(x) = a$	$x \in \mathbb{R}$
$f(x) = e^x$	$f'(x) = e^x$	$x \in \mathbb{R}$
$f(x) = e^{-x}$	$f'(x) = -e^{-x}$	$x \in \mathbb{R}$
$f(x) = e^{kx}$	$f'(x) = ke^{kx}$	$x \in \mathbb{R}$, $k \in \mathbb{R}$
$f(x) = \ln(x)$	$f'(x) = \frac{1}{x}$	$x \in \mathbb{R}_+^*$
$f(x) = \log_a(x)$	$f'(x) = \frac{1}{\ln(a)} \frac{1}{x}$	$x \in \mathbb{R}_+^*$, $a \in \mathbb{R}_+^* \setminus \{1\}$
$f(x) = a^x = e^{x \ln(a)}$	$f'(x) = \ln(a) a^x$	$x \in \mathbb{R}$, $a \in \mathbb{R}_+^*$
$f(x) = \sin(x)$	$f'(x) = \cos(x)$	$x \in \mathbb{R}$
$f(x) = \cos(x)$	$f'(x) = -\sin(x)$	$x \in \mathbb{R}$
$f(x) = \tan(x)$	$f'(x) = 1 + (\tan(x))^2 = \frac{1}{(\cos(x))^2}$	$x \in]-\frac{\pi}{2} + k\pi, \frac{\pi}{2} + k\pi[$
$f(x) = \cosh(x)$	$f'(x) = \sinh(x)$	$x \in \mathbb{R}$
$f(x) = \sinh(x)$	$f'(x) = \cosh(x)$	$x \in \mathbb{R}$
$f(x) = \tanh(x)$	$f'(x) = 1 - (\tanh(x))^2 = \frac{1}{(\cosh(x))^2}$	$x \in \mathbb{R}$
$f(x) = \arcsin(x)$	$f'(x) = \frac{1}{\sqrt{1-x^2}}$	$x \in]-1, 1[$
$f(x) = \arccos(x)$	$f'(x) = -\frac{1}{\sqrt{1-x^2}}$	$x \in]-1, 1[$
$f(x) = \arctan(x)$	$f'(x) = \frac{1}{1+x^2}$	$x \in \mathbb{R}$
$f(x) = \operatorname{argsinh}(x)$	$f'(x) = \frac{1}{\sqrt{x^2+1}}$	$x \in \mathbb{R}$
$f(x) = \operatorname{argcosh}(x)$	$f'(x) = \frac{1}{\sqrt{x^2-1}}$	$x \in]1, +\infty[$
$f(x) = \operatorname{argtanh}(x)$	$f'(x) = \frac{1}{1-x^2}$	$x \in]-1, 1[$