

$f(x)$	$f'(x)$
c	0
x^n	$n \cdot x^{n-1}$ $x \in \mathfrak{R}$
x^α	$\alpha \cdot x^{\alpha-1}$ $\alpha \in \mathfrak{R}; x > 0$
$\frac{1}{x}$	$-\frac{1}{x^2}$
\sqrt{x}	$\frac{1}{2\sqrt{x}}$
e^x	e^x
a^x	$a^x \ln a$
$\ln x$	$\frac{1}{x}$
$\log_a x$	$\frac{1}{\ln a} \cdot \frac{1}{x}$
$\ln(f(x))$	$\frac{f'(x)}{f(x)}$
$\sin x$	$\cos x$
$\cos x$	$-\sin x$
$\tan x$	$\frac{1}{\cos^2 x}$
$\cot x$	$-\frac{1}{\sin^2 x}$
$\sinh x$	$\cosh x$
$\cosh x$	$\sinh x$
$\tanh x$	$\frac{1}{\cosh^2 x}$
$\coth x$	$-\frac{1}{\sinh^2 x}$

$(c \cdot f)' = c \cdot f'$	$(f \pm g)' = f' \pm g'$
$(f \cdot g)' = f' \cdot g + f \cdot g'$	$\left(\frac{f}{g}\right)' = \frac{g \cdot f' - g' \cdot f}{g^2}$
$\frac{d}{dx} f(g(x)) = f'(g(x)) \cdot g'(x)$	$\approx \frac{df}{dx} = \frac{df}{dg} \cdot \frac{dg}{dx}$
$\frac{d}{dx} f^{-1}(x) = \frac{1}{f'(f^{-1}(x))}$	$\approx \frac{dx}{dy} = \frac{1}{\frac{dy}{dx}} \quad \text{if } f^{-1} \text{ exists}$