

Tavola delle derivate di funzioni elementari

$f(x)$	$f'(x)$
x^α	$\alpha x^{\alpha-1}, \quad \forall \alpha \in \mathbb{R}$
$\sin x$	$\cos x$
$\cos x$	$-\sin x$
$\tan x$	$1 + \tan^2 x = \frac{1}{\cos^2 x}$
$\arcsin x$	$\frac{1}{\sqrt{1-x^2}}$
$\arccos x$	$-\frac{1}{\sqrt{1-x^2}}$
$\arctan x$	$\frac{1}{1+x^2}$
a^x	$(\log a) a^x$
$\log_a x $	$\frac{1}{(\log a) x}$
$\sinh x$	$\cosh x$
$\cosh x$	$\sinh x$

Regole di derivazione

$$(\alpha f(x) + \beta g(x))' = \alpha f'(x) + \beta g'(x)$$

$$(f(x)g(x))' = f'(x)g(x) + f(x)g'(x)$$

$$\left(\frac{f(x)}{g(x)}\right)' = \frac{f'(x)g(x) - f(x)g'(x)}{(g(x))^2}$$

$$(g(f(x)))' = g'(f(x))f'(x)$$