

Tabella 7.1 Derivate elementari. I è il dominio della funzione $f : x \in I \mapsto f(x) \in \mathbb{R}$.

$f(x)$	I	$f'(x)$
const	$\mathbb{R}$	0
x^n , ($n \in \mathbb{Z} \setminus \{0\}$)	$\mathbb{R} \ (\{x \neq 0\} \text{ se } n < 0)$	$n x^{n-1}$
x^α , ($\alpha \in \mathbb{R} \setminus \{0\}$)	$\mathbb{R}_+$	$\alpha x^{\alpha-1}$
e^x	$\mathbb{R}$	e^x
a^x	$\mathbb{R}$	$\log a \cdot a^x$
$\log x $	$\{x \neq 0\}$	$\frac{1}{x}$
$\log_a x $	$\{x \neq 0\}$	$\frac{1}{x \log a}$
$\sinh x$	$\mathbb{R}$	$\cosh x$
$\cosh x$	$\mathbb{R}$	$\sinh x$
$\tanh x$	$\mathbb{R}$	$\frac{1}{\cosh^2 x}$
$\sinh^{-1} x = \log(x + \sqrt{x^2 + 1})$	$\mathbb{R}$	$\frac{1}{\sqrt{x^2 + 1}}$
$\cosh^{-1} x = \log(x + \sqrt{x^2 - 1})$	$\{x > 1\}$	$\frac{1}{\sqrt{x^2 - 1}}$
$\tanh^{-1} x = \frac{1}{2} \log \frac{1+x}{1-x}$	$\{ x < 1\}$	$\frac{1}{1-x^2}$
$\sin x$	$\mathbb{R}$	$\cos x$
$\cos x$	$\mathbb{R}$	$-\sin x$
$\tan x$	$(-\frac{\pi}{2}, \frac{\pi}{2}) + \pi\mathbb{Z}$	$\frac{1}{\cos^2 x}$
$\cotan x$	$(-\frac{\pi}{2}, \frac{\pi}{2}) + \pi\mathbb{Z}$	$-\frac{1}{\sin^2 x}$
$\operatorname{Arcsen} x$	$\{ x < 1\}$	$\frac{1}{\sqrt{1-x^2}}$
$\operatorname{Arccos} x = \frac{\pi}{2} - \operatorname{Arcsen} x$	$\{ x < 1\}$	$-\frac{1}{\sqrt{1-x^2}}$
$\operatorname{Arctan} x$	$\mathbb{R}$	$\frac{1}{1+x^2}$
$\operatorname{Arccot} x = \frac{\pi}{2} - \operatorname{Arctan} x$	$\mathbb{R}$	$-\frac{1}{1+x^2}$