

Ableitungen elementarer Funktionen

$y = f(x)$	$y' = f'(x)$	$y = f(x)$	$y' = f'(x)$
C	0	$\ln x$	$\frac{1}{x}$
x	1	$\sin x$	$\cos x$
x^n	$n \cdot x^{n-1}$	$\cos x$	$-\sin x$
$\frac{1}{x}$	$-\frac{1}{x^2}$	$\tan x$	$\frac{1}{\cos^2 x}$
$\frac{1}{x^n}$	$-\frac{n}{x^{n+1}}$	$\cot x$	$-\frac{1}{\sin^2 x}$
\sqrt{x}	$\frac{1}{2 \cdot \sqrt{x}}$	$\arcsin x$	$\frac{1}{\sqrt{1-x^2}}$
$\sqrt[n]{x}$	$\frac{1}{n \cdot \sqrt[n]{x^{n-1}}}$	$\arccos x$	$-\frac{1}{\sqrt{1-x^2}}$
e^x	e^x	$\arctan x$	$\frac{1}{(1+x^2)}$
a^x	$a^x \cdot \ln a$	$\operatorname{arc cot} x$	$-\frac{1}{(1+x^2)}$

Tabelle wichtiger Integrale

$f(x)$	$\int f(x) dx$	$f(x)$	$\int f(x) dx$
x^n	$\frac{1}{(n+1)} \cdot x^{n+1} \quad (n \neq -1)$	$\sin cx$	$-\frac{1}{c} \cos cx$
$\frac{1}{x}$	$\ln x $	$\cos cx$	$\frac{1}{c} \sin cx$
\sqrt{x}	$\frac{2}{3} \sqrt{x^3}$	$\tan cx$	$-\frac{1}{c} \ln \cos cx $
e^{cx}	$\frac{1}{c} \cdot e^{cx}$	$\cot cx$	$\frac{1}{c} \ln \sin cx $
$x \cdot e^{cx}$	$\frac{1}{c^2} \cdot e^{cx} (c \cdot x - 1)$	$\sin^2 cx$	$\frac{1}{2} \left(x - \frac{1}{c} \sin cx \cdot \cos cx \right)$
$\ln x$	$x \ln x - x$	$\cos^2 cx$	$\frac{1}{2} \left(x + \frac{1}{c} \sin cx \cdot \cos cx \right)$