

Differentiation rules and standard derivatives

Function	Derivative
c	0
x^n	$n \cdot x^{n-1}$
e^x	e^x
a^x	$a^x \ln a$
$\ln x$	$1/x$
$\sin x$	$\cos x$
$\cos x$	$-\sin x$
$\tan x$	$\sec^2 x$
$\arcsin x$	$1/\sqrt{1-x^2}$
$\arctan x$	$1/(1+x^2)$
$f \cdot g$	$f'g + fg'$
f/g	$(f'g - fg')/g^2$
$f(g(x))$	$f'(g(x)) \cdot g'(x)$

Notes