

MATHEMATICAL TABLES

Table Of Derivatives

$y = f(x)$	\bar{y}
constant	0
x	1
x^n	$n x^{(n-1)}$
$u \pm v$	$\bar{u} \pm \bar{v}$
cu	cu
uv	$u \bar{v} + \bar{u} v$
$\frac{u}{v}$	$\bar{u} v - u \frac{\bar{v}}{(v^2)}, v \neq 0$
$\frac{c}{v}$	$\frac{-c}{v^2} * \bar{v}, v \neq 0$
u^v	$v u^{(v-1)} \bar{u} + u^v \ln u . v$
$y = f(u), u = \phi(x)$	$\frac{dy}{dx} = \frac{dy}{du} \cdot \frac{du}{dx}$
$\sin(x)$	$\cos(x)$
$\cos(x)$	$-\sin(x)$
$\tan(x)$	$\sec^2(x)$
$\cot(x)$	$-\operatorname{cosec}^2(x)$
$\sec(x)$	$\sec(x) \tan(x)$
$\operatorname{cosec}(x)$	$-\operatorname{cosec}(x) \cdot \cot(x)$
e^x	e^x
$\ln(x)$	$\frac{1}{x}$
a^x	$a^x \ln(a)$
$\log_a x$	$\frac{1}{x} \log_a e$