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| |  | | --- | | **Table of Derivatives** | | **(**[**Math**](http://www.math.com/tables/tables.htm)**|**[**Calculus**](http://www.math.com/tables/calculus.htm)**|**[**Derivatives**](http://www.math.com/tables/derivatives.htm)**| Table Of)** |   Power of x.   |  |  |  | | --- | --- | --- | | http://www.math.com/tables/d-dx.gif c = 0 | http://www.math.com/tables/d-dx.gif x = 1 | http://www.math.com/tables/d-dx.gif xn = n x(n-1)   [Proof](http://www.math.com/tables/derivatives/more/x%5En.htm) |   Exponential / Logarithmic   |  |  |  | | --- | --- | --- | | http://www.math.com/tables/d-dx.gif ex = ex   [Proof](http://www.math.com/tables/derivatives/more/e%5Ex.htm) | http://www.math.com/tables/d-dx.gif bx = bx ln(b)   [Proof](http://www.math.com/tables/derivatives/more/b%5Ex.htm) | http://www.math.com/tables/d-dx.gif ln(x) = 1/x   [Proof](http://www.math.com/tables/derivatives/more/ln.htm) |   Trigonometric   |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif sin x = cos x   [Proof](http://www.math.com/tables/derivatives/more/trig.htm#sin) | http://www.math.com/tables/d-dx.gif csc x = -csc x cot x   [Proof](http://www.math.com/tables/derivatives/more/trig.htm#reciprocals) | | http://www.math.com/tables/d-dx.gif cos x = - sin x   [Proof](http://www.math.com/tables/derivatives/more/trig.htm#cos) | http://www.math.com/tables/d-dx.gif sec x = sec x tan x   [Proof](http://www.math.com/tables/derivatives/more/trig.htm#reciprocals) | | http://www.math.com/tables/d-dx.gif tan x = sec2 x   [Proof](http://www.math.com/tables/derivatives/more/trig.htm#tan) | http://www.math.com/tables/d-dx.gif cot x = - csc2 x   [Proof](http://www.math.com/tables/derivatives/more/trig.htm#reciprocals) |   Inverse Trigonometric   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif arcsin x  = | 1  sqrt(1 - x2) | | |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif arccsc x = | -1  |x| sqrt(x2 - 1) | | | |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif arccos x = | -1  sqrt(1 - x2) | | |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif arcsec x = | 1  |x| sqrt(x2 - 1) | | | |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif arctan x = | 1  1 + x2 | | |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif arccot x = | -1  1 + x2 | |   Hyperbolic   |  |  | | --- | --- | | http://www.math.com/tables/d-dx.gif sinh x = cosh x   [Proof](http://www.math.com/tables/derivatives/more/hyperbolics.htm#sinh) | http://www.math.com/tables/d-dx.gif csch x = - coth x csch x   [Proof](http://www.math.com/tables/derivatives/more/hyperbolics.htm#csch) | | http://www.math.com/tables/d-dx.gif cosh x = sinh x   [Proof](http://www.math.com/tables/derivatives/more/hyperbolics.htm#cosh) | http://www.math.com/tables/d-dx.gif sech x = - tanh x sech x   [Proof](http://www.math.com/tables/derivatives/more/hyperbolics.htm#csch) | | http://www.math.com/tables/d-dx.gif tanh x = 1 - tanh2 x   [Proof](http://www.math.com/tables/derivatives/more/hyperbolics.htm#tanh) | http://www.math.com/tables/d-dx.gif coth  x = 1 - coth2 x   [Proof](http://www.math.com/tables/derivatives/more/hyperbolics.htm#csch) | |