Table of Derivatives

(**Math** | **Calculus** | **Derivatives** | **Table Of**)

Power of x.

$\frac{d}{dx} c = 0$	$\frac{d}{dx} x = 1$	$\frac{d}{dx} x^n = n\,x^{(n-1)}$ Proof

Exponential / Logarithmic

$\frac{d}{dx} e^x = e^x$ Proof	$\frac{d}{dx} b^x = b^x \ln(b)$ Proof	$\frac{d}{dx} \ln(x) = 1/x$ Proof

Trigonometric

$\frac{d}{dx} \sin x = \cos x$ Proof	$\frac{d}{dx} \csc x = -\csc x \cot x$ Proof
$\frac{d}{dx} \cos x = -\sin x$ Proof	$\frac{d}{dx} \sec x = \sec x \tan x$ Proof
$\frac{d}{dx} \tan x = \sec^2 x$ Proof	$\frac{d}{dx} \cot x = -\csc^2 x$ Proof

Inverse Trigonometric

$\frac{d}{dx} \arcsin x = \frac{1}{\sqrt{(1 - x^2)}}$	$\frac{d}{dx} \operatorname{arccsc} x = \frac{-1}{\lvert x\rvert \sqrt{(x^2 - 1)}}$
$\frac{d}{dx} \arccos x = \frac{-1}{\sqrt{(1 - x^2)}}$	$\frac{d}{dx} \operatorname{arcsec} x = \frac{1}{\lvert x\rvert \sqrt{(x^2 - 1)}}$
$\frac{d}{dx} \arctan x = \frac{1}{1 + x^2}$	$\frac{d}{dx} \operatorname{arccot} x = \frac{-1}{1 + x^2}$

Hyperbolic

$\frac{d}{dx} \sinh x = \cosh x$ Proof	$\frac{d}{dx} \operatorname{csch} x = -\coth x \operatorname{csch} x$ Proof
$\frac{d}{dx} \cosh x = \sinh x$ Proof	$\frac{d}{dx} \operatorname{sech} x = -\tanh x \operatorname{sech} x$ Proof
$\frac{d}{dx} \tanh x = 1 - \tanh^2 x$ Proof	$\frac{d}{dx} \coth x = 1 - \coth^2 x$ Proof

Those with hyperlinks have proofs.