

DERIVATIVES

The Definition of the Derivative is:

$$\frac{d}{dx}(x^n) =$$

$$\frac{d}{dx}(\ln x) =$$

$$\frac{d}{dx}(f(x) \pm g(x)) =$$

$$\frac{d}{dx}(\log_b x) =$$

$$\frac{d}{dx}(f(x)g(x)) =$$

$$\frac{d}{dx}(e^x) =$$

$$\frac{d}{dx}\left(\frac{f(x)}{g(x)}\right) =$$

$$\frac{d}{dx}(a^x) =$$

$$\frac{d}{dx}(f(g(x))) =$$

$$\frac{d}{dx}(\arcsin x) =$$

$$\frac{d}{dx}(\sin x) =$$

$$\frac{d}{dx}(\arccos x) =$$

$$\frac{d}{dx}(\cos x) =$$

$$\frac{d}{dx}(\arctan x) =$$

$$\frac{d}{dx}(\tan x) =$$

$$\frac{d}{dx}(\operatorname{arccot} x) =$$

$$\frac{d}{dx}(\cot x) =$$

$$\frac{d}{dx}(\operatorname{arcsec} x) =$$

$$\frac{d}{dx}(\sec x) =$$

$$\frac{d}{dx}(\operatorname{arccsc} x) =$$

$$\frac{d}{dx}(\csc x) =$$

For Inverse Functions $f(x)$ and $g(x)$

$$(f(x) = g^{-1}(x))$$