

Standard Derivatives

$$\frac{dc}{dx} = 0$$

$$\frac{dx^n}{dx} = nx^{n-1}$$

$$\frac{de^x}{dx} = e^x$$

$$\frac{d \ln x}{dx} = \frac{1}{x}$$

$$\frac{da^x}{dx} = a^x \ln a$$

$$\frac{d \log_a x}{dx} = \frac{1}{x \ln a}$$

$$\frac{d \sin x}{dx} = \cos x$$

$$\frac{d \cos x}{dx} = -\sin x$$

$$\frac{d \tan x}{dx} = \sec^2 x$$

$$\frac{d \cot x}{dx} = -\csc^2 x$$

$$\frac{d \sec x}{dx} = \sec x \tan x$$

$$\frac{d \csc x}{dx} = -\csc x \cot x$$

$$\frac{d \sin^{-1} x}{dx} = \frac{1}{\sqrt{1-x^2}}$$

$$\frac{d \cos^{-1} x}{dx} = -\frac{1}{\sqrt{1-x^2}}$$

$$\frac{d \tan^{-1} x}{dx} = \frac{1}{1+x^2}$$

$$\frac{d \cot^{-1} x}{dx} = -\frac{1}{1+x^2}$$

$$\frac{d \sec^{-1} x}{dx} = \frac{1}{|x|\sqrt{x^2-1}}$$

$$\frac{d \csc^{-1} x}{dx} = -\frac{1}{|x|\sqrt{x^2-1}}$$