

Calculus rules

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$$y = \sin x$$

$$y' = \cos x$$

$$y = \cos x$$

$$y' = -\sin x$$

$$y = \tan x$$

$$y' = \sec^2 x$$

$$y = \csc x$$

$$y' = -\csc x \cot x$$

$$y = \sec x$$

$$y' = \sec x \tan x$$

$$y = \cot x$$

$$y' = -\csc^2 x$$

$$y = \sin(f(x)) \therefore y' = \cos(f(x)) \times f'(x)$$

$$y = \cos(f(x)) \therefore y' = -\sin(f(x)) \times f'(x)$$

$$y = \tan(f(x)) \therefore y' = \sec^2(f(x)) \times f'(x)$$

$$y = \csc(f(x)) \therefore y' = -\csc(f(x)) \cot(f(x)) \times f'(x)$$

$$y = \sec(f(x)) \therefore y' = \sec(f(x)) \tan(f(x)) \times f'(x)$$

$$y = \cot(f(x)) \therefore y' = -\csc^2(f(x)) \times f'(x)$$

$$y = \sin^n(x) \therefore n \sin^{n-1}(x) \cdot \cos(x)$$

$$y = \cos^n(x) \therefore n \cos^{n-1}(x) \cdot -\sin(x)$$

$$y = \tan^n(x) \therefore n \tan^{n-1}(x) \cdot \sec^2(x)$$

$$y = \sec^n(x) \therefore n \sec^{n-1}(x) \cdot \sec^2(x) \tan(x)$$

$$y = \csc^n(x) \therefore n \csc^{n-1}(x) \cdot -\csc(x) \cot(x)$$

$$y = \cot^n(x) \therefore n \cot^{n-1}(x) \cdot -\csc^2(x)$$

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