

Derivadas

Tabla de Derivadas

- $[k]' = 0, k = \text{Constante}$
- $[x]' = 1$
- $[x^n]' = n \cdot x^{n-1}, n = \text{Constante}$
- $[\sqrt{x}]' = \frac{1}{2\sqrt{x}}$
- $[\ln(x)]' = \frac{1}{x}$
- $[\log_a(x)]' = \frac{1}{x \cdot \ln(a)}$
- $[e^x]' = e^x$
- $[a^x]' = a^x \cdot \ln(a)$
- $[\sin(x)]' = \cos(x)$
- $[\cos(x)]' = -\sin(x)$
- $[\tan(x)]' = 1 + \tan^2(x) = \sec^2(x)$
- $[\csc(x)]' = -\csc(x) \cdot \cot(x)$
- $[\sec(x)]' = \sec(x) \cdot \tan(x)$
- $[\cot(x)]' = -\left[1 + \cot^2(x)\right] = -\csc^2(x)$

Tabla de Derivadas

- $[\arcsen(x)]' = \frac{1}{\sqrt{1-x^2}}$
- $[\arccos(x)]' = -\frac{1}{\sqrt{1-x^2}}$
- $[\arctg(x)]' = \frac{1}{1+x^2}$

Reglas y Propiedades de las Derivadas

- $[k \cdot f(x)]' = k \cdot f'(x)$
- $[f(x) + g(x)]' = f'(x) + g'(x)$
- $[f(x) - g(x)]' = f'(x) - g'(x)$
- $[f(x) \cdot g(x)]' = f'(x) \cdot g(x) + f(x) \cdot g'(x)$
- $\left[\frac{f(x)}{g(x)}\right]' = \frac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{[g(x)]^2}$

Regla de la Cadena

Dada una función compuesta:

$$y = f(g(x))$$

Entonces:

$$f'(g(x)) = f'(g(x)) \cdot g'(x)$$

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Donaciones



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