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Tabla de derivadas

Derivadas básicas

$[k]' = 0, k \in R$

$[x]' = 1$

$[x^n]' = nx^{n-1}$

$[\sqrt{x}]' = \dfrac{1}{2\sqrt{x}}$

$[\sqrt[3]{x}]' = \dfrac{1}{3\sqrt[3]{x^2}}$

$[kf(x)]' = kf'(x)$

$\left[\dfrac{1}{x}\right]' = \dfrac{-1}{x^2}$

$[\log_a x]' = \dfrac{1}{x}\log_a e$

$[\ln x]' = \dfrac{1}{x}$

$[a^x]' = a^x \ln a$

$[e^x]' = e^x$

$\left[\dfrac{f(x)}{g(x)}\right]' = \dfrac{f'(x)g(x) - f(x)g'(x)}{[g(x)]^2}$

$[f(x)g(x)]' = f'(x)g(x) + f(x)g'(x)$

$[f(x) \pm g(x)]' = f'(x) \pm g'(x)$

$[sen(x)]' = \cos(x)$

$[\cos(x)]' = -sen(x)$

$[\tan(x)]' = \sec^2(x)$

$[\sec(x)]' = \sec(x)\tan(x)$

$[\csc(x)]' = -\csc(x)\cot(x)$

$[\cot(x)]' = -\csc^2(x)$

$[arcsen(x)]' = \dfrac{1}{\sqrt{1-x^2}}$

$[\arccos(x)]' = \dfrac{-1}{\sqrt{1-x^2}}$

$[\arctan(x)]' = \dfrac{1}{1+x^2}$

$[arc\sec(x)]' = \dfrac{1}{|x|\sqrt{x^2-1}}$

$[arc\csc(x)]' = \dfrac{-1}{|x|\sqrt{x^2-1}}$

$[arc\cot(x)]' = \dfrac{-1}{1+x^2}$

Derivadas básicas con regla de la cadena

$[(f(x))^n]' = n[f(x)]^{n-1} f'(x)$

$[\sqrt{f(x)}]' = \dfrac{1}{2\sqrt{f(x)}} f'(x)$

$[\sqrt[3]{f(x)}]' = \dfrac{1}{3\sqrt[3]{(f(x))^2}} f'(x)$

$\left[\dfrac{1}{f(x)}\right]' = \dfrac{-1}{f^2(x)} f'(x)$

$[e^{f(x)}]' = e^{f(x)} f'(x)$

$[\ln f(x)]' = \dfrac{1}{f(x)} f'(x)$

$[a^{f(x)}]' = a^{f(x)} f'(x)\ln a$

$[\log_a f(x)]' = \dfrac{1}{f(x)} \cdot f'(x)\log_a e$

$[sen[f(x)]]' = \cos[f(x)]f'(x)$

$[\cos[f(x)]]' = -sen[f(x)]f'(x)$

$[\tan[f(x)]]' = \sec^2[f(x)]f'(x)$

$[\sec[f(x)]]' = \sec[f(x)]\tan(f(x))\, f'(x)$

$[\csc[f(x)]]' = -\csc[f(x)]\cot[f(x)]f'(x)$

$[\cot(f(x))]' = -\csc^2[f(x)]f'(x)$

$[arcsen[f(x)]]' = \dfrac{f'(x)}{\sqrt{1-f(x)^2}}$

$[\arccos[f(x)]]' = \dfrac{-f'(x)}{\sqrt{1-f(x)^2}}$

$[\arctan[f(x)]]' = \dfrac{f'(x)}{1+f(x)^2}$

$[arc\sec[f(x)]]' = \dfrac{f'(x)}{|f(x)|\sqrt{f(x)^2-1}}$

$[arc\csc[f(x)]]' = \dfrac{-f'(x)}{|f(x)|\sqrt{f(x)^2-1}}$

$[arc\cot[f(x)]]' = \dfrac{-f'(x)}{1+f(x)^2}$