

REGLAS DE DERIVACIÓN

SUMA	$(f \pm g)' = f' \pm g'$	
PRODUCTO POR UN NÚMERO	$(k \cdot f)' = k \cdot f' \quad (k \in \mathbb{R})$	
PRODUCTO	$(f \cdot g)' = f' \cdot g + f \cdot g'$	
COCIENTE	$\left(\frac{f}{g}\right)' = \frac{f' \cdot g - f \cdot g'}{g^2}$	
COMPOSICIÓN (Regla de la cadena)	$[f(g(x))]' = f'(g(x)) \cdot g'(x)$	
POTENCIA	$[x^n]' = n \cdot x^{n-1}$ $[\sqrt{x}]' = \left[x^{\frac{1}{2}}\right]' = \frac{1}{2\sqrt{x}}$ $\left[\frac{1}{x}\right]' = [x^{-1}]' = -\frac{1}{x^2}$	$[f(x)^n]' = n \cdot f(x)^{n-1} \cdot f'(x)$ $[\sqrt{f(x)}]' = \frac{1}{2\sqrt{f(x)}} \cdot f'(x)$ $\left[\frac{1}{f(x)}\right]' = -\frac{1}{[f(x)]^2} \cdot f'(x)$
TRIGONOMÉTRICA	$[\text{sen}(x)]' = \text{cos}(x)$ $[\text{cos}(x)]' = -\text{sen}(x)$ $[\text{tg}(x)]' = 1 + \text{tg}^2(x)$	$[\text{sen}(f(x))]' = \text{cos}(f(x)) \cdot f'(x)$ $[\text{cos}(f(x))]' = -\text{sen}(f(x)) \cdot f'(x)$ $[\text{tg}(f(x))]' = [1 + \text{tg}^2(f(x))] \cdot f'(x)$
FUNCIONES ARCO (Inversa o recíproca de las trigonométricas)	$[\text{arcsen}(x)]' = \frac{1}{\sqrt{1-x^2}}$ $[\text{arccos}(x)]' = \frac{-1}{\sqrt{1-x^2}}$ $[\text{arctg}(x)]' = \frac{1}{1+x^2}$	$[\text{arcsen}(f(x))]' = \frac{1}{\sqrt{1-[f(x)]^2}} \cdot f'(x)$ $[\text{arccos}(f(x))]' = \frac{-1}{\sqrt{1-[f(x)]^2}} \cdot f'(x)$ $[\text{arctg}(f(x))]' = \frac{1}{1+[f(x)]^2} \cdot f'(x)$
EXPONENCIALES	$[e^x]' = e^x$ $[a^x]' = a^x \cdot \ln(a)$	$[e^{f(x)}]' = e^{f(x)} \cdot f'(x)$ $[a^{f(x)}]' = a^{f(x)} \cdot \ln(a) \cdot f'(x)$
LOGARÍTMICAS	$\ln(x) = \frac{1}{x}$ $\log_a(x) = \frac{1}{x \cdot \ln(a)}$	$\ln(f(x)) = \frac{1}{f(x)} \cdot f'(x)$ $\log_a(f(x)) = \frac{1}{f(x) \cdot \ln(a)} \cdot f'(x)$