

PROPIEDADES DE LAS DERIVADAS		
Suma y Resta	$y = f(x) \pm g(x)$	$y' = f'(x) \pm g'(x)$
Producto por un número	$y = k f(x)$	$y' = k f'(x)$
Producto de derivadas	$y = f(x) \cdot g(x)$	$y' = f'(x) \cdot g(x) + f(x) \cdot g'(x)$
Cociente de derivadas	$y = \frac{f(x)}{g(x)}$	$y' = \frac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{g^2(x)}$
Regla de la Cadena	$y = f[g(x)]$	$y' = f'[g(x)] \cdot g'(x)$

TABLA DE DERIVADAS

Constantes	$y = k$	$y' = 0$	-	-
Potenciales	$y = x^n$	$y' = nx^{n-1}$	$y = [f(x)]^n$	$y' = n[f(x)]^{n-1} \cdot f'(x)$
Exponenciales	$y = e^x$	$y' = e^x$	$y = e^{f(x)}$	$y' = e^{f(x)} \cdot f'(x)$
	$y = a^x$	$y' = a^x \cdot \ln a$	$y = a^{f(x)}$	$y' = a^{f(x)} \cdot \ln a \cdot f'(x)$
Logarítmicas	$y = \ln x$	$y' = \frac{1}{x}$	$y = \ln f(x)$	$y' = \frac{f'(x)}{f(x)}$
	$y = \log_a x$	$y' = \frac{1}{x} \cdot \frac{1}{\ln a}$	$y = \log_a f(x)$	$y' = \frac{f'(x)}{f(x)} \cdot \frac{1}{\ln a}$
Trigonométricas	$y = \sin x$	$y' = \cos x$	$y = \sin f(x)$	$y' = \cos f(x) \cdot f'(x)$
	$y = \cos x$	$y' = -\sin x$	$y = \cos f(x)$	$y' = -\sin f(x) \cdot f'(x)$
	$y = \operatorname{tg} x$	$y' = 1 + \operatorname{tg}^2 x$	$y = \operatorname{tg} f(x)$	$y' = [1 + \operatorname{tg}^2 f(x)] \cdot f'(x)$
	$y = \operatorname{tg} x$	$y' = \operatorname{sec}^2 x$	$y = \operatorname{tg} f(x)$	$y' = \operatorname{sec}^2 f(x) \cdot f'(x)$
Trig. Inversas	$y = \arcsin x$	$y' = \frac{1}{\sqrt{1-x^2}}$	$y = \arcsin f(x)$	$y' = \frac{1}{\sqrt{1-f^2(x)}} \cdot f'(x)$
	$y = \arccos x$	$y' = \frac{-1}{\sqrt{1-x^2}}$	$y = \arccos f(x)$	$y' = \frac{-1}{\sqrt{1-f^2(x)}} \cdot f'(x)$
	$y = \arctan x$	$y' = \frac{1}{1+x^2}$	$y = \arctan f(x)$	$y' = \frac{1}{1+f^2(x)} \cdot f'(x)$