

TABLA DE DERIVADAS

1. CONSTANTE	$y = k$	$y' = 0$
2. IDENTIDAD		$y = x \quad y' = 1$
3. SUMA	$y = f(x) \pm g(x)$	$y' = f'(x) \pm g'(x)$
4. PRODUCTO	$y = f(x) \cdot g(x)$	$y' = f'(x) \cdot g(x) + f(x) \cdot g'(x)$
5. COCIENTE	$y = \frac{f(x)}{g(x)}$	$y' = \frac{f'(x) \cdot g(x) - f(x) \cdot g'(x)}{g(x)^2}$
6. POTENCIA	$y = f(x)^n$	$y' = n \cdot f(x)^{n-1} \cdot f'(x)$
7. RAÍZ	$y = \sqrt[n]{f(x)}$	$y' = \frac{f'(x)}{n \cdot \sqrt[n]{f(x)^{n-1}}}$
	$y = \sqrt{f(x)}$	$y' = \frac{f'(x)}{2 \cdot \sqrt{f(x)}}$
	$y = \sqrt{x}$	$y' = \frac{1}{2 \cdot \sqrt{x}}$
8. EXPONENCIAL	$y = a^{f(x)}$	$y' = a^{f(x)} \cdot La \cdot f'(x)$
	$y = e^{f(x)}$	$y' = e^{f(x)} \cdot f'(x)$
	$y = e^x$	$y = e^x$
9. FUNC. ELEV A FUNC.	$y = f(x)^{g(x)}$	$y' = g(x) \cdot f(x)^{g(x)-1} \cdot f'(x) + f(x)^{g(x)} \cdot Lf(x) \cdot g'(x)$
10. LOGARITMO	$y = \log_a f(x)$	$y' = \frac{f'(x)}{f(x)} \cdot \log_a e$
	$y = Lf(x)$	$y' = \frac{f'(x)}{f(x)}$
	$y = Lx$	$y' = \frac{1}{x}$
11. SENO	$y = \text{sen } f(x)$	$y' = \cos f(x) \cdot f'(x)$
12. COSENO	$y = \text{cos } f(x)$	$y' = -\text{sen } f(x) \cdot f'(x)$
13. TANGENTE		$y = \text{tg } f(x) \quad y' = \frac{f'(x)}{\cos^2 f(x)} \quad \text{ó} \quad y' = [1 + \text{tg}^2 f(x)] \cdot f'(x)$
14. COTANGENTE	$y = \text{ctg } f(x)$	$y' = \frac{-f'(x)}{\text{sen}^2 f(x)} \quad \text{ó} \quad y' = -[1 + \text{ctg}^2 f(x)] \cdot f'(x)$
15. ARCO SENO	$y = \text{arcsen } f(x)$	$y' = \frac{f'(x)}{\sqrt{1-f(x)^2}}$
16. ARCO COSENO	$y = \text{arccos } f(x)$	$y' = \frac{-f'(x)}{\sqrt{1-f(x)^2}}$
17. ARCO TANGENTE	$y = \text{arc } \text{tg } f(x)$	$y' = \frac{f'(x)}{1+f(x)^2}$

$y = f(g(x)) \Rightarrow y' = f'(g(x)) \cdot g'(x)$ **REGLA DE LA CADENA**