

TABLA DE DERIVADAS

Simples		Compuestas	
Función	Derivada	Función	Derivada
$y = c$	$y' = 0$		
$y = x$	$y' = 1$		
$y = x^n$	$y' = nx^{n-1}$	$y = f(x)^n$	$y' = nf(x)^{n-1} f'(x)$
$y = \sqrt{x}$	$y' = \frac{1}{2\sqrt{x}}$	$y = \sqrt{f(x)}$	$y' = \frac{f'(x)}{2\sqrt{f(x)}}$
$y = \sqrt[n]{x}$	$y' = \frac{1}{n \cdot \sqrt[n]{x^{n-1}}}$	$y = \sqrt[n]{f(x)}$	$y' = \frac{f'(x)}{n \cdot \sqrt[n]{f(x)^{n-1}}}$
$y = a^x$ con $a > 0$	$y' = a^x \ln a$	$y = a^{f(x)}$ con $a > 0$	$y' = f'(x)a^{f(x)} \ln a$
$y = e^x$	$y' = e^x$	$y = e^{f(x)}$	$y' = f'(x)e^{f(x)}$
$y = \log_a x$	$y' = \frac{1}{x} \log_a e$	$y = \log_a f(x)$	$y' = \frac{f'(x)}{f(x)} \log_a e$
$y = \ln x$	$y' = \frac{1}{x}$	$y = \ln f(x)$	$y' = \frac{f'(x)}{f(x)}$
$y = \operatorname{sen} x$	$y' = \cos x$	$y = \operatorname{sen} f(x)$	$y' = f'(x) \cos f(x)$
$y = \cos x$	$y' = -\operatorname{sen} x$	$y = \cos f(x)$	$y' = -f'(x) \operatorname{sen} f(x)$
$y = \operatorname{tg} x$	$y' = 1 + \operatorname{tg}^2 x$	$y = \operatorname{tg} f(x)$	$y' = f'(x) [1 + \operatorname{tg}^2 f(x)]$
$y = \operatorname{arcsen} x$	$y' = \frac{1}{\sqrt{1-x^2}}$	$y = \operatorname{arcsen} f(x)$	$y' = \frac{f'(x)}{\sqrt{1-f(x)^2}}$
$y = \operatorname{arccos} x$	$y' = \frac{-1}{\sqrt{1-x^2}}$	$y = \operatorname{arccos} f(x)$	$y' = \frac{-f'(x)}{\sqrt{1-f(x)^2}}$
$y = \operatorname{arctg} x$	$y' = \frac{1}{1+x^2}$	$y = \operatorname{arctg} f(x)$	$y' = \frac{f'(x)}{1+f(x)^2}$