

ÁLGEBRA DE DERIVADAS

$f(x) = g(x) \pm h(x)$	$f'(x) = g'(x) \pm h'(x)$
$f(x) = g(x) \cdot h(x)$	$f'(x) = g'(x) \cdot h(x) + g(x) \cdot h'(x)$
$f(x) = \frac{g(x)}{h(x)}$	$f'(x) = \frac{g'(x) \cdot h(x) - g(x) \cdot h'(x)}{h(x)^2}$, si $h(x) \neq 0$.
$f(x) = g(h(x))$	$f'(x) = g'(h(x)) \cdot h'(x)$ (Regla de la CADENA)

TABLA DE DERIVADAS DE LAS FUNCIONES ELEMENTALES

Funciones elementales		Funciones compuestas (usando la Regla de la Cadena)	
$f(x) = a$	$f'(x) = 0$		
$f(x) = x$	$f'(x) = 1$		
$f(x) = ax$	$f'(x) = a$	$f(x) = ag(x)$	$f'(x) = ag'(x)$
$f(x) = ax + b$	$f'(x) = a$	$f(x) = ag(x) + b$	$f'(x) = ag'(x)$
$f(x) = x^2$	$f'(x) = 2x$	$f(x) = g(x)^2$	$f'(x) = 2g(x)g'(x)$
$f(x) = \sqrt{x}$	$f'(x) = \frac{1}{2\sqrt{x}}$	$f(x) = \sqrt{g(x)}$	$f'(x) = \frac{1}{2\sqrt{g(x)}} g'(x)$
$f(x) = x^n$ ($n \neq 0$)	$f'(x) = nx^{n-1}$	$f(x) = g(x)^n$	$f'(x) = ng(x)^{n-1} g'(x)$
$f(x) = e^x$	$f'(x) = e^x$	$f(x) = e^{g(x)}$	$f'(x) = e^{g(x)} g'(x)$
$f(x) = a^x$ ($a > 0$)	$f'(x) = a^x \ln(a)$	$f(x) = a^{g(x)}$	$f'(x) = a^{g(x)} \ln(a) g'(x)$
$f(x) = \ln(x)$	$f'(x) = \frac{1}{x}$	$f(x) = \ln(g(x))$	$f'(x) = \frac{1}{g(x)} g'(x)$
$f(x) = \log_b(x)$	$f'(x) = \frac{1}{x \ln(b)}$	$f(x) = \log_b(g(x))$	$f'(x) = \frac{1}{g(x) \ln(b)} g'(x)$
$f(x) = \text{sen}(x)$	$f'(x) = \text{cos}(x)$	$f(x) = \text{sen}(g(x))$	$f'(x) = \text{cos}(g(x)) g'(x)$
$f(x) = \text{cos}(x)$	$f'(x) = -\text{sen}(x)$	$f(x) = \text{cos}(g(x))$	$f'(x) = -\text{sen}(g(x)) g'(x)$
$f(x) = \text{tan}(x)$	$f'(x) = \frac{1}{\text{cos}^2(x)}$	$f(x) = \text{tan}(g(x))$	$f'(x) = \frac{1}{\text{cos}^2(g(x))} g'(x)$
$f(x) = \text{arc sen}(x)$	$f'(x) = \frac{1}{\sqrt{1-x^2}}$	$f(x) = \text{arc sen}(g(x))$	$f'(x) = \frac{1}{\sqrt{1-g(x)^2}} g'(x)$
$f(x) = \text{arc cos}(x)$	$f'(x) = \frac{-1}{\sqrt{1-x^2}}$	$f(x) = \text{arc cos}(g(x))$	$f'(x) = \frac{-1}{\sqrt{1-g(x)^2}} g'(x)$
$f(x) = \text{arctan}(x)$	$f'(x) = \frac{1}{1+x^2}$	$f(x) = \text{arctan}(g(x))$	$f'(x) = \frac{1}{1+g(x)^2} g'(x)$