

## Fórmulas de las derivadas de las funciones elementales

Función	Derivada
$y = x^n$	$y' = nx^{n-1}$
$y = f(x)^n$	$y' = nf(x)^{n-1}f'(x)$
$y = e^{f(x)}$	$y' = e^{f(x)}f'(x)$
$y = a^{f(x)}$	$y' = a^{f(x)}f'(x)\log a$
$y = \log f(x)$	$y' = \frac{f'(x)}{f(x)}$
$y = \log_a f(x)$	$y' = \frac{f'(x)}{f(x)}\log_a e$
$y = \operatorname{sen} f(x)$	$y' = f'(x)\cos f(x)$
$y = \operatorname{cos} f(x)$	$y' = -f'(x)\operatorname{sen} f(x)$
$y = \operatorname{tg} f(x)$	$y' = \frac{f'(x)}{\cos^2 f(x)} = f'(x)(1 + \operatorname{tg}^2 f(x))$
$y = \operatorname{senh} f(x)$	$y' = f'(x)\operatorname{cosh} f(x)$
$y = \operatorname{cosh} f(x)$	$y' = f'(x)\operatorname{senh} f(x)$
$y = \operatorname{tgh} f(x)$	$y' = \frac{f'(x)}{\operatorname{cosh}^2 f(x)}$
$y = \operatorname{arcsen} f(x)$	$y' = \frac{f'(x)}{\sqrt{1-f(x)^2}}$
$y = \operatorname{arccos} f(x)$	$y' = \frac{-f'(x)}{\sqrt{1-f(x)^2}}$
$y = \operatorname{arctg} f(x)$	$y' = \frac{f'(x)}{1+f(x)^2}$
$y = \operatorname{arcsenh} f(x)$	$y' = \frac{f'(x)}{\sqrt{1+f(x)^2}}$
$y = \operatorname{arctgh} f(x)$	$y' = \frac{f'(x)}{1-f(x)^2}$