

TABLA DE DERIVADAS

<u>Función</u>	<u>Derivada</u>
$y = k$	$y' = 0$
$y = x$	$y' = 1$
$y = k \cdot u(x) : y = k \cdot x$	$y' = k \cdot u'(x) : y' = k$
$y = u^n(x) : y = x^n$	$y' = n \cdot u^{n-1}(x) \cdot u'(x) : y' = n \cdot x^{n-1}$
$y = \ln u(x) : y = \ln x$	$y' = \frac{u'(x)}{u(x)} : y' = \frac{1}{x}$
$y = \log_a u(x) : y = \log_a x$	$y' = \frac{u'(x)}{u(x)} \cdot \log_a e : y' = \frac{1}{x} \cdot \log_a e$
$y = e^{u(x)} : y = e^x$	$y' = u'(x) \cdot e^{u(x)} : y' = e^x$
$y = a^{u(x)} : y = a^x$	$y' = u'(x) \cdot a^{u(x)} \cdot \ln a : y' = a^x \cdot \ln a$
$y = \operatorname{sen} u(x) : y = \operatorname{sen} x$	$y' = \cos u(x) \cdot u'(x) : y' = \cos x$
$y = \operatorname{cos} u(x) : y = \operatorname{cos} x$	$y' = -\operatorname{sen} u(x) \cdot u'(x) : y' = -\operatorname{sen} x$
$y = \operatorname{tg} u(x) : y = \operatorname{tg} x$	$y' = \frac{u'(x)}{\cos^2 u(x)} : y' = \frac{1}{\cos^2 x}$ $y' = (1 + \operatorname{tg}^2 u(x)) u'(x) : y' = 1 + \operatorname{tg}^2 x$
$y = \operatorname{cotg} u(x) : y = \operatorname{cotg} x$	$y' = -\frac{u'(x)}{\operatorname{sen}^2 u(x)} : y' = -\frac{1}{\operatorname{sen}^2 x}$ $y' = (-1 - \operatorname{cot}^2 u(x)) u'(x) : y' = -1 - \operatorname{cot}^2 x$
$y = \operatorname{sec} u(x) : y = \operatorname{sec} x$	$y' = -\frac{u'(x) \cdot \operatorname{sen} u(x)}{\cos^2 u(x)} : y' = -\frac{\operatorname{sen} x}{\cos^2 x}$
$y = \operatorname{cosec} u(x) : y = \operatorname{cosec} x$	$y' = \frac{u'(x) \cdot \operatorname{cos} u(x)}{\operatorname{sen}^2 u(x)} : y' = \frac{\operatorname{cos} x}{\operatorname{sen}^2 x}$
$y = \operatorname{arc} \operatorname{sen} u(x) : y = \operatorname{arc} \operatorname{sen} x$	$y' = \frac{u'(x)}{\sqrt{1-u^2(x)}} : y' = \frac{1}{\sqrt{1-x^2}}$
$y = \operatorname{arc} \operatorname{cos} u(x) : y = \operatorname{arc} \operatorname{cos} x$	$y' = -\frac{u'(x)}{\sqrt{1-u^2(x)}} : y' = -\frac{1}{\sqrt{1-x^2}}$
$y = \operatorname{arctg} u(x) : y = \operatorname{arctg} x$	$y' = \frac{u'(x)}{1+u^2(x)} : y' = \frac{1}{1+x^2}$