Tabla de derivadas

Función	Derivada	Ejemplos	
Constante			
y=k	***y'=0***	***y=8***	***y'=0***
Identidad			
y=x	***y'=1***	***y=x***	***y'=1***
Funciones potenciales			
$y = u^m$	$y' = mu^{m-1}u'$	$y = (2x^2+1)^3$	$y' = 3(2x^2+1)^2 \cdot 4x$
$y = \frac{1}{u^m}$	$y' = -\frac{mu'}{u^{m+1}}$	$y = \frac{1}{(2x+1)^3}$	$y' = -\frac{6}{(2x+1)^4}$
$y = \sqrt{u}$	$y' = \frac{u'}{2\sqrt{u}}$	$y = \sqrt{5x}$	$y' = \frac{5}{2\sqrt{5x}}$
$y = \sqrt[m]{u}$	$y' = \frac{u'}{m\sqrt[m]{u^{m-1}}}$	$y = \sqrt[5]{3x^2}$	$y' = \frac{6x}{5\sqrt[5]{(3x^2)^4}}$
Funciones exponenciales			
$y = e^u$	$y' = u'e^u$	$y = e^{3x^2+1}$	$y' = 6xe^{3x^2+1}$
$y = a^u$	$y' = u'a^u La$	$y = 5^{3x-4}$	$y' = 3 \cdot 5^{3x-4} L5$
Funciones logarítmicas			
$y = Lu$	$y' = \frac{u'}{u}$	$y = L(x^2+7x)$	$y' = \frac{2x+7}{x^2+7x}$
$y = \log_a u$	$y' = \frac{u'}{u}\log_a e$	$y = \log_2(5x+7)$	$y' = \frac{5}{5x+7}\log_2 e$
Funciones trigonométricas			
$y = \operatorname{sen} u$	$y' = u'\cos u$	$y = \operatorname{sen} 5x$	$y' = 5\cos 5x$
$y = \cos u$	$y' = -u'\operatorname{sen} u$	$y = \cos 3x^2$	$y' = -6x\operatorname{sen} x^2$

$y = \text{tg}\, u$	$y' = u' \sec^2 u$	$y = \text{tg}\, 7x$	$y' = 7 \sec^2 7x$
$y = \cot g u$	$y' = u' \cos ec^2 u$	$y = \cot g\,(4x+5)$	$y' = -4 \cos ec^2 (4x+5)$
$y = \sec u$	$y' = u' \sec u \cdot \text{tg}\, u$	$y = \sec x^3$	$y' = 3x^2 \sec x^3 \text{ tg } x^3$
$y = \cos ec u$	$y' = -u' \cos ec u \cot g u$	$y = \cos ec x^2$	$y' = -2x \cos ec x^2 \cot g x^2$
$y = \text{arcsen}\, u$	$y' = \dfrac{u'}{\sqrt{1-u^2}}$	$y = \text{arcsen}\, x^2$	$y' = \dfrac{2x}{\sqrt{1-x^4}}$
$y = \arccos u$	$y' = \dfrac{-u'}{\sqrt{1-u^2}}$	$y = \arccos 3x$	$y' = \dfrac{-3}{\sqrt{1-9x^2}}$
$y = \text{arctg}\, u$	$y' = \dfrac{u'}{1+u^2}$	$y = \text{arctg}\, 3x$	$y' = \dfrac{3}{1+9x^2}$
Derivadas de sumas, restas, productos y cocientes de funciones			
$y = ku$	$y' = ku'$	$y = 3x^5$	$y' = 3 \cdot 5x^4 = 15x^4$
$y = u + v - w$	$y' = u' + v' - w'$	$y = 3x^2 - 2x + 5$	$y' = 6x - 2$
$y = uv$	$y' = u'v + uv'$	$y = x^2 \cos x$	$y' = 2x \cos x + x^2 (-\text{sen}\, x)$
$y = \dfrac{u}{v}$	$y' = \dfrac{u'v - uv'}{v^2}$	$y = \dfrac{2x^2}{x^3 - 1}$	$y' = \dfrac{4x(x^3-1) - 2x^2(3x^2)}{(x^3-1)^2}$