FÓRMULAS DERIVADAS

$y = x^n$	$y' = n x^{n-1}$	$y = f(x)^n$	$y' = n \cdot f(x)^{n-1} \cdot f'(x)$
$y = \log_a x$	$y' = \frac{1}{x} \log_a e$	$y = \log_a f(x)$	$y' = \frac{f'(x)}{f(x)} \log_a e$
$y = \text{Ln } x$	$y' = \frac{1}{x}$	$y = \text{Ln } f(x)$	$y' = \frac{f'(x)}{f(x)}$
$y = e^x$	$y' = e^x$	$y = e^{f(x)}$	$y = f'(x) \cdot e^{f(x)}$
$y = a^x$	$y' = a^x \text{Ln } a$	$y = a^{f(x)}$	$y' = f'(x) a^{f(x)} \text{Ln } a$
$y = \text{sen } x$	$y' = \cos x$	$y = \text{sen } f(x)$	$y' = f'(x) \cos f(x)$
$y = \cos x$	$y' = - \text{sen } x$	$y = \cos f(x)$	$y' = -f'(x) \text{ sen } f(x)$
$y = \text{tang } x$	$y' = \sec^2 x$	$y = \text{tang } f(x)$	$y' = f'(x) \sec^2 f(x)$
$y = \text{cotang } x$	$y' = - \text{cosec}^2 x$	$y = \text{cotang } f(x)$	$y' = - f'(x) \text{ cosec}^2 f(x)$
$y = \text{arcsen } x$	$y' = \frac{1}{\sqrt{1-x^2}}$	$y = \text{arcsen } f(x)$	$y' = \frac{f'(x)}{\sqrt{1-f^2(x)}}$
$y = \arccos x$	$y' = - \frac{1}{\sqrt{1-x^2}}$	$y = \arccos f(x)$	$y' = - \frac{f'(x)}{\sqrt{1-f^2(x)}}$
$y = \text{arctang } x$	$y' = \frac{1}{1+x^2}$	$y = \text{arctang } f(x)$	$y' = \frac{f'(x)}{1+f^2(x)}$
$y = \sqrt{x}$	$y' = \frac{1}{2\sqrt{x}}$	$y = \sqrt[n]{f(x)^m}$	$y' = \frac{m}{n} f'(x) \cdot f(x)^{\frac{m}{n}-1}$

FÓRMULAS RELACIONADAS CON LAS DERIVADAS

$$\left(f(x) \bullet g(x) \right)' = f'(x) \bullet g(x) + g'(x) \bullet f(x)$$

$$\left(\frac{f(x)}{g(x)} \right)' = \frac{f'(x) \bullet g(x) - g'(x) \bullet f(x)}{g^2(x)}$$

$$\left(\left(f(x) \right)^{g(x)} \right)' = \left(f(x) \right)^{g(x)} \left\{ g'(x) \bullet \text{Lnf}(x) + g(x) \bullet \frac{f'(x)}{f(x)} \right\}$$

FÓRMULAS RELACIONADAS CON LA TRIGONOMETRÍA

Sen (a + b) = sen a · cos b + cos a · sen b

Cos (a + b) = cos a · cos b - sen a · sen b

Sen (a - b) = sen a · cos b - cos a · sen b

Cos (a - b) = cos a · cos b + sen a · sen b

$$\text{Sen} \left(\frac{a}{2} \right) = \sqrt{\frac{1-\cos a}{2}}$$

$$\cos^2 b + \text{sen}^2 b = 1$$

$$\cos \left(\frac{a}{2} \right) = \sqrt{\frac{1+\cos a}{2}}$$

$$1 + \text{tang}^2 a = \sec^2 a$$

FÓRMULAS DERIVADAS

$y = x^n$	$y' = n x^{n-1}$	$y = f(x)^n$	$y' = n \cdot f(x)^{n-1} \cdot f'(x)$
$y = \log_a x$	$y' = \frac{1}{x} \log_a e$	$y = \log_a f(x)$	$y' = \frac{f'(x)}{f(x)} \log_a e$
$y = \mathrm{Ln}\, x$	$y' = \frac{1}{x}$	$y = \mathrm{Ln}\, f(x)$	$y' = \frac{f'(x)}{f(x)}$
$y = e^x$	$y' = e^x$	$y = e^{f(x)}$	$y = f'(x) \cdot e^{f(x)}$
$y = a^x$	$y' = a^x \mathrm{Ln}\, a$	$y = a^{f(x)}$	$y' = f'(x) a^{f(x)} \mathrm{Ln}\, a$
$y = \mathrm{sen}\, x$	$y' = \cos x$	$y = \mathrm{sen}\, f(x)$	$y' = f'(x) \cos f(x)$
$y = \cos x$	$y' = -\mathrm{sen}\, x$	$y = \cos f(x)$	$y' = -f'(x)\, \mathrm{sen}\, f(x)$
$y = \mathrm{tang}\, x$	$y' = \sec^2 x$	$y = \mathrm{tang}\, f(x)$	$y' = f'(x) \sec^2 f(x)$
$y = \mathrm{cotang}\, x$	$y' = -\mathrm{cosec}^2 x$	$y = \mathrm{cotang}\, f(x)$	$y' = -f'(x)\, \mathrm{cosec}^2 f(x)$
$y = \mathrm{arcsen}\, x$	$y' = \frac{1}{\sqrt{1-x^2}}$	$y = \mathrm{arcsen}\, f(x)$	$y' = \frac{f'(x)}{\sqrt{1-f^2(x)}}$
$y = \arccos x$	$y' = -\frac{1}{\sqrt{1-x^2}}$	$y = \arccos f(x)$	$y' = -\frac{f'(x)}{\sqrt{1-f^2(x)}}$
$y = \mathrm{arctang}\, x$	$y' = \frac{1}{1+x^2}$	$y = \mathrm{arctang}\, f(x)$	$y' = \frac{f'(x)}{1+f^2(x)}$
$y = \sqrt{x}$	$y' = \frac{1}{2\sqrt{x}}$	$y = \sqrt[n]{f(x)^m}$	$y' = \frac{m}{n} f'(x) \cdot f(x)^{\frac{m}{n}-1}$

FÓRMULAS RELACIONADAS CON LAS DERIVADAS

$$\left(f(x) \bullet g(x)\right)' = f'(x) \bullet g(x) + g'(x) \bullet f(x)$$

$$\left(\frac{f(x)}{g(x)}\right)' = \frac{f'(x) \bullet g(x) - g'(x) \bullet f(x)}{g^2(x)}$$

$$\left(\left(f(x)\right)^{g(x)}\right)' = \left(f(x)\right)^{g(x)} \left\{ g'(x) \bullet \mathrm{Ln} f(x) + g(x) \bullet \frac{f'(x)}{f(x)} \right\}$$

FÓRMULAS RELACIONADAS CON LA TRIGONOMETRÍA

Sen (a + b) = sen a · cos b + cos a · sen b

Cos (a + b) = cos a · cos b - sen a · sen b

Sen (a - b) = sen a · cos b - cos a · sen b

Cos (a - b) = cos a · cos b + sen a · sen b

$$\mathrm{Sen}\left(\frac{a}{2}\right) = \sqrt{\frac{1-\cos a}{2}}$$

$\cos^2 b + \mathrm{sen}^2 b = 1$

$$\cos\left(\frac{a}{2}\right) = \sqrt{\frac{1+\cos a}{2}}$$

$1 + \mathrm{tang}^2 a = \sec^2 a$