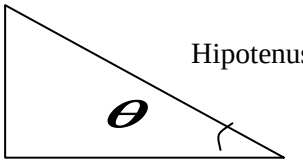
Operaciones aritméticas:

$a\ x^{\ b}$ $\begin{cases} a = coeficiente \\ x = \text{var}iable \text{ o base} \\ b = \text{exp}onente \text{ o grado} \end{cases}$

Operaciones Aritméticas y funciones	
$x^0 = 1 \qquad x \neq 0$	$(a+b)^2 = a^2 + 2ab + b^2$
$x^1 = x$	$(a-b)^2 = a^2 - 2ab + b^2$
$x^m \,.\, x^n = x^{m+n}$	$(a+b)^3 = a^3 + 3a^2b + 3ab^2 + b^3$
$(x^a)^b = x^{a.b}$	$(a-b)^3 = a^3 - 3a^2b + 3ab^2 - b^3$
$\sqrt[n]{x^m} = x^{\frac{m}{n}}$	$(a+b)^4 = a^4 + 4a^3b + 6a^2b^2 + 4ab^3 + b^4$
$\sqrt{x} = x^{\frac{1}{2}}$	$(a-b)^4 = a^4 - 4a^3b + 6a^2b^2 - 4ab^3 + b^4$
$\sqrt[n]{a.b} = \sqrt[n]{a} \,.\, \sqrt[n]{b}$	$(x^2 - a^2) = (x - a)(x + a)$
$ax^m \pm bx^m = (a \pm b)x^m$	$(x^3 + a^3) = (x + a)(x^2 - ax + a^2)$
$ax^m \,.\, bx^n = (a.b)\ x^{m+n}$	$(x^3 - a^3) = (x - a)(x^2 + ax + a^2)$
$\frac{x^m}{x^n} = x^{m\ -\ n}$	$(x^4 - a^4) = (x^2 - a^2)(x^2 + a^2)$
$\left(\frac{x^a}{x^b}\right)^c = \frac{x^{a.c}}{x^{b.c}} = x^{a.c\ -\ b.c}$	$\frac{a^2 - b^2}{a\ +\ b} = a - b$
$x^{-n} = \frac{1}{x^n}$	$\frac{a^2 - b^2}{a\ -\ b} = a + b$
$\frac{0}{x} = 0$	$\frac{a^3 + b^3}{a\ +\ b} = a^2 - ab + b^2$
$\frac{x}{0} = \infty$	$\frac{a^3 - b^3}{a\ -\ b} = a^2 + ab + b^2$
$\frac{a}{b} + \frac{c}{d} = \frac{ad + cd}{bd}$	$\frac{a^4 - b^4}{a\ -\ b} = a^3 + a^2b + ab^2 + b^3$
$\frac{a+c}{b} = \frac{a}{b} + \frac{c}{b}$	$\ln\left[\frac{x}{y}\right] = \ln(x) - \ln(y)$
$a.b + a.c = a\,(b+c)$	$\ln(x)^{\,y} = y\,\ln(x)$
$(a.b)^c = a^c \,.\, b^c$	$\ln(x.y) = \ln(x) + \ln(y)$
$\left(\frac{a}{b}\right) \cdot \left(\frac{c}{d}\right) = \left(\frac{a.c}{b.d}\right)$	$y = mx \pm b$ (ecuaciongeneralde la recta)
$\left(\frac{\frac{a}{b}}{\frac{c}{d}}\right) = \frac{ad}{bc}$	$y - y_1 = m\,(x - x_1)$ (ecuacion de la recta punto pendiente)
$ax^2 + bx + c = 0$ $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	*completacion de cuadrados* $ax^2 + bx + c = 0$ $x^2 + \frac{bx}{a} + \frac{c}{a} = x^2 + \frac{bx}{a} + \left(\frac{b}{2a}\right)^2 - \left(\frac{b}{2a}\right)^2 + \frac{c}{a}$

IDENTIDADES TRIGONOMETRICAS

$sen\theta = \frac{co}{hip}$	$sen\theta = \frac{1}{\csc\theta}$	$sen\theta = \sqrt{1-\cos^2\theta}$	$sen^2\theta = 1-\cos^2\theta$	$\boldsymbol{sen^2 nx = \frac{1-\cos 2nx}{2}}$
$\cos\theta = \frac{ca}{hip}$	$\cos\theta = \frac{1}{\sec\theta}$	$\cos\theta = \sqrt{1-sen^2\theta}$	$\cos^2\theta = 1-sen^2\theta$	$\boldsymbol{\cos^2 nx = \frac{1+\cos 2nx}{2}}$
$\tan\theta = \frac{co}{ca}$	$\tan\theta = \frac{1}{\cot\theta}$	$\tan\theta = \sqrt{\sec^2\theta-1}$	$\tan^2\theta = \sec^2\theta-1$	$1 = \tan\theta\sqrt{\csc^2\theta-1}$
$\cot\theta = \frac{ca}{co}$	$\cot\theta = \frac{1}{\tan\theta}$	$\cot\theta = \sqrt{\csc^2\theta-1}$	$\cot^2\theta = \csc^2\theta-1$	$1 = \cot\theta\sqrt{\sec^2\theta-1}$
$\sec\theta = \frac{hip}{ca}$	$\sec\theta = \frac{1}{\cos\theta}$	$\sec\theta = \sqrt{\tan^2\theta+1}$	$\sec^2\theta = \tan^2\theta+1$	$\boldsymbol{1 = sec\theta\sqrt{1-sen^2\theta}}$
$\csc\theta = \frac{hip}{co}$	$\csc\theta = \frac{1}{sen\theta}$	$\csc\theta = \sqrt{1+\cot^2\theta}$	$\csc^2\theta = 1+\cot^2\theta$	$1 = \csc\theta\sqrt{1-\cos^2\theta}$
$sen\theta = \frac{\cos\theta}{\cot\theta}$	$\csc\theta = \frac{\sec\theta}{\tan\theta}$	$\tan\theta(\cos\theta) = sen\theta$	$sen\theta = \frac{\tan\theta}{\sqrt{1+\tan^2\theta}}$	$sen\theta = \frac{1}{\sqrt{1+\cot^2\theta}}$
$\cos\theta = \frac{sen\theta}{\tan\theta}$	$\sec\theta = \frac{\csc\theta}{\cot\theta}$	$\cot\theta(sen\theta) = \cos\theta$	$sen\theta = \frac{\cos\theta}{\sqrt{\csc^2\theta-1}}$	$\cos\theta = \frac{1}{\sqrt{\tan^2\theta+1}}$
$\tan\theta = \frac{sen\theta}{\cos\theta}$	$\tan\theta = \frac{\sec\theta}{\csc\theta}$	$\tan\theta(\csc\theta) = \sec\theta$	$sen\theta = \frac{\tan\theta}{\sqrt{1-\cos^2\theta}}$	$\tan\theta = \frac{1}{\sqrt{\csc^2\theta-1}}$
$\cot\theta = \frac{\cos\theta}{sen\theta}$	$\cot\theta = \frac{\csc\theta}{\sec\theta}$	$\cot\theta(\sec\theta) = \csc\theta$	$sen\theta = \frac{\sqrt{\sec^2\theta-1}}{\sec\theta}$	$\boldsymbol{\cot\theta = \frac{1}{\sqrt{\sec^2\theta-1}}}$
$\boldsymbol{SEN\theta = (CSC\theta) = 1}$	$\cos\theta = \frac{\cot\theta}{\sqrt{1+\cot^2\theta}}$	$\tan\theta = \frac{\sqrt{1-\cos^2\theta}}{\cos\theta}$	$\cos\theta = sen\theta\sqrt{\csc^2\theta-1}$	$\boldsymbol{\sec\theta = \frac{1}{\sqrt{1-sen^2\theta}}}$
$\tan\theta(\cot\theta) = 1$	$\cos\theta = \frac{sen\theta}{\sqrt{\sec^2\theta-1}}$	$\tan\theta = \frac{sen\theta}{\sqrt{1-sen^2\theta}}$	$sen\theta = \cos\theta\sqrt{\sec^2\theta-1}$	$\csc\theta = \frac{1}{\sqrt{1-\cos^2\theta}}$
$\cos\theta(\sec\theta) = 1$	$\cos\theta = \frac{\sqrt{\csc^2\theta-1}}{\csc\theta}$	$\cot\theta = \frac{\sqrt{1-sen^2\theta}}{sen\theta}$	$\sec\theta = \frac{\sqrt{1+\cot^2\theta}}{\cot\theta}$	$\csc\theta = \frac{\sqrt{1+\tan^2\theta}}{\tan\theta}$
$\frac{1=\csc^2\theta-\cot^2\theta}{1=sen^2\theta+\cos^2\theta}$	$1 = \sec^2\theta-\tan^2\theta$	$\cot\theta = \frac{\cos\theta}{\sqrt{1-\cos^2\theta}}$	$\sec\theta = \frac{\csc\theta}{\sqrt{\csc^2\theta-1}}$	$\csc\theta = \frac{\sec\theta}{\sqrt{\sec^2\theta-1}}$
$cos2u=cos^2x - sen^2x$				
$Sen2u=2senucosu$				



Cateto opuesto (co) $\boldsymbol{sen\theta}$

Cateto adyacente (ca) $\boldsymbol{cos\theta}$