

IDENTIDADES TRIGONOMÉTRICAS (Genaro Luna Carreto)

$\operatorname{sen}(x + y) = \operatorname{sen} x \cos y + \operatorname{sen} y \cos x$	$\operatorname{sen}^2 x + \cos^2 x = 1$	$1 + \tan^2 x = \sec^2 x$
$\operatorname{sen}(x - y) = \operatorname{sen} x \cos y - \operatorname{sen} y \cos x$	$1 + \cot^2 x = \csc^2 x$	$\operatorname{sen}(-x) = -\operatorname{sen} x$
$\cos(x + y) = \cos x \cos y - \operatorname{sen} x \operatorname{sen} y$	$\cos(-x) = \cos x$	$\tan(-x) = -\tan x$
$\cos(x - y) = \cos x \cos y + \operatorname{sen} x \operatorname{sen} y$	$\operatorname{sen} 2x = 2 \operatorname{sen} x \cos x$	$\operatorname{sen}^2 x = \frac{1 - \cos 2x}{2}$
$\tan(x + y) = \frac{\tan x + \tan y}{1 - \tan x \tan y}$	$\cos^2 x = \frac{1 + \cos 2x}{2}$	$\cos 2x = \cos^2 x - \operatorname{sen}^2 x$
$\tan(x - y) = \frac{\tan x - \tan y}{1 + \tan x \tan y}$	$\tan x = \frac{\operatorname{sen} x}{\cos x}$	$\sec x = \frac{1}{\cos x}$
$\operatorname{sen} mx \cos nx = \frac{1}{2}[\operatorname{sen}(m - n)x + \operatorname{sen}(m + n)x]$	$\csc x = \frac{1}{\operatorname{sen} x}$	$\cot x = \frac{1}{\tan x}$
$\operatorname{sen} mx \operatorname{sen} nx = \frac{1}{2}[\cos(m - n)x - \cos(m + n)x]$	$\cos(2\pi k + x) = \cos x$	$\cos(360k + x) = \cos x$
$\cos mx \cos nx = \frac{1}{2}[\cos(m - n)x + \cos(m + n)x]$	$\operatorname{sen}(2\pi k + x) = \operatorname{sen} x$	$\operatorname{sen}(360k + x) = \operatorname{sen} x$
$\operatorname{arctan} x + \operatorname{arctan} y = \operatorname{arctan}\left[\frac{x+y}{1-xy}\right]$		
$\operatorname{arcsen} x + \operatorname{arcsen} y = \operatorname{arcsen}[x\sqrt{1-y^2} + y\sqrt{1-x^2}]$		