

FÓRMULAS TRIGONOMÉTRICAS

sen (A+B) = sen A cos B + cos A sen B	
sen (A-B) = sen A cos B - cos A sen B	tang (A + B) = $\frac{tangA + tangB}{1 - tangA \cdot tangB}$
cos (A+B) = cos A cos B - sen A sen B	
cos (A-B) = cos A cos B + sen A sen B	tang (A - B) = $\frac{tangA - tangB}{1 + tangA \cdot tangB}$
sen 2A = 2 sen A cos A	
cos 2A = cos ² A - sen ² A	tang 2A = $\frac{2 \cdot tangA}{1 - tang^2 A}$
sen $\frac{A}{2} = \pm \sqrt{\frac{1 - \cos A}{2}}$	
cos $\frac{A}{2} = \pm \sqrt{\frac{1 + \cos A}{2}}$	tang $\frac{A}{2} = \frac{1 - \cos A}{\sin A}$
sen A + sen B = 2 sen $\frac{A+B}{2}$ cos $\frac{A-B}{2}$	sen A - sen B = 2 sen $\frac{A-B}{2}$ cos $\frac{A+B}{2}$
cos A + cos B = 2 cos $\frac{A+B}{2}$ cos $\frac{A-B}{2}$	cos A - cos B = -2sen $\frac{A+B}{2}$ sen $\frac{A-B}{2}$

TEOREMA DEL SENO:

$$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$$

TEOREMA DE COSENO:

$$a^2 = c^2 + b^2 - 2bc \cos A$$

$$b^2 = c^2 + a^2 - 2ac \cos B$$

$$c^2 = a^2 + b^2 - 2ba \cos C$$

OTRAS FÓRMULAS:

$$\sin^2 a + \cos^2 a = 1$$

$$1 + \tan^2 a = \sec^2 a$$

$$1 + \cotang^2 a = \operatorname{cosec}^2 a$$

RAZONES TRIGONOMÉTRICAS CONOCIDAS

	0	30	45	60	90	180	270	360
SENO	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	0	-1	0
COSECANTE	∞	2	$\frac{2}{\sqrt{2}}$	$\sqrt{3}$	1	∞	-1	∞
COSENO	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	-1	0	1
SECANTE	1	$\frac{2}{\sqrt{3}}$	$\frac{2}{\sqrt{2}}$	2	∞	-1	∞	1
TANGENTE	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	∞	0		0
COTANGENTE	∞	$\sqrt{3}$	1	$\frac{1}{\sqrt{3}}$	0	∞		∞
RADIANES	0	$\frac{\pi}{6}$		$\frac{\pi}{3}$	$\frac{\pi}{2}$	π		2π