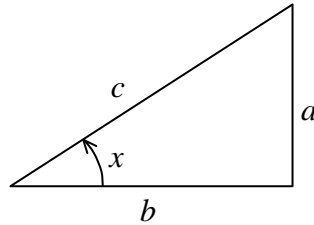


Definiciones y relaciones básicas

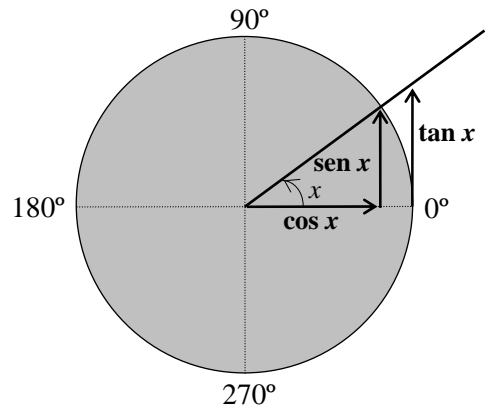
$$\text{sen } x = \frac{\text{cateto opuesto}}{\text{hipotenusa}} = \frac{a}{c}$$

$$\text{cos } x = \frac{\text{cateto contiguo}}{\text{hipotenusa}} = \frac{b}{c}$$

$$\text{tan } x = \frac{\text{cateto opuesto}}{\text{cateto contiguo}} = \frac{a}{b}$$



Circunferencia trigonométrica.



$$\text{sen}^2 x + \text{cos}^2 x = 1 \quad 1 + \text{tan}^2 x = \frac{1}{\text{cos}^2 x} \quad \text{tan } x = \frac{\text{sen } x}{\text{cos } x}$$

$$\text{sec } x = \frac{1}{\text{cos } x} \quad \text{cosec } x = \frac{1}{\text{sen } x} \quad \text{cotan } x = \frac{\text{cos } x}{\text{sen } x} = \frac{1}{\text{tan } x}$$

Razones trigonométricas de los ángulos principales

Grados	0°	30°	45°	60°	90°	120°	135°	150°	180°	210°	225°	240°	270°	300°	315°	330°	360°
Rad	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$	$2\pi/3$	$3\pi/4$	$5\pi/6$	π	$7\pi/6$	$5\pi/4$	$4\pi/3$	$3\pi/2$	$5\pi/3$	$7\pi/4$	$11\pi/6$	2π
sen x	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0
cos x	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{2}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
tan x	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	∞	$-\sqrt{3}$	-1	$-\frac{\sqrt{3}}{3}$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	∞	$-\sqrt{3}$	-1	$-\frac{\sqrt{3}}{3}$	0

Cuadrantes y signos

