

TRIGONOMETRIC FUNCTION REFERENCE

Standard Form: $y = A \sin(B(x - C)) + D$

Sine $f(x) = \sin x$

Domain: $(-\infty, \infty)$

Range: $[-1, 1]$

Period: 2π

Amplitude: 1

Cosine $f(x) = \cos x$

Domain: $(-\infty, \infty)$

Range: $[-1, 1]$

Period: 2π

Amplitude: 1

Tangent $f(x) = \tan x$

Period: π

Asymptotes: $\pi/2 + n\pi$

Cosecant $f(x) = \csc x$

Period: 2π

Range: $(-\infty, -1] \cup [1, \infty)$

Transformation Parameters: $|A| = \text{Amplitude}$ $2\pi/|B| = \text{Period}$ $C = \text{Phase Shift}$ $D = \text{Vertical Shift}$

Angle (\hat{I})	0 (0)	30 ($\pi/6$)	45 ($\pi/4$)	60 ($\pi/3$)	90 ($\pi/2$)
$\sin \hat{I}$	0	1/2	$\sqrt{2}/2$	$\sqrt{3}/2$	1
$\cos \hat{I}$	1	$\sqrt{3}/2$	$\sqrt{2}/2$	1/2	0
$\tan \hat{I}$	0	$\sqrt{3}/3$	1	$\sqrt{3}$	undef