

TRIGONOMETRIC FUNCTION REFERENCE

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

$|A| = \text{Amplitude}$ $\hat{\neq}$ $\text{Period} = 2\pi/|B|$ $\hat{\neq}$ $C = \text{Phase Shift}$ $\hat{\neq}$ $D = \text{Vertical Shift}$

Sine: $f(x) = \sin(x)$

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

Range: $[-1, 1]$

Period: 2π

Odd/Even: Odd

Cosine: $f(x) = \cos(x)$

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

Range: $[-1, 1]$

Period: 2π

Odd/Even: Even

Tangent: $f(x) = \tan(x)$

Domain: $x \neq \pi/2 + k\pi$

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

Period: π

Vertical Asym: $x = \pi/2$

Cosecant: $f(x) = \csc(x)$

Domain: $x \neq k\pi$

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

Period: 2π

Reciprocal: $1/\sin(x)$

Academic Reference Sheet $\hat{\neq}$ College Trigonometry