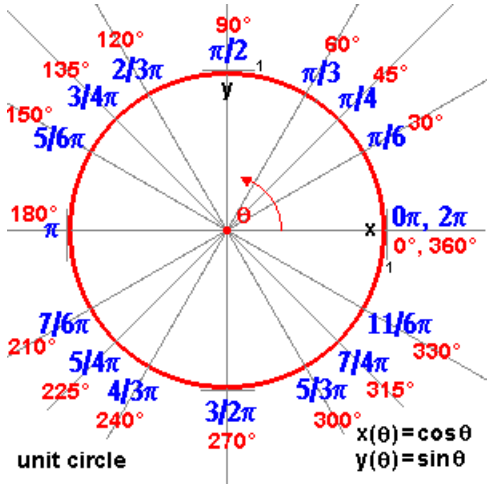
Trig Table of Common Angles "**SOHCAHTOA**"

angle (degrees)	0	30	45	60	90	120	135	150	180	210	225	240	270	300	315	330
sin(a)	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	$\frac{-1}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{\sqrt{3}}{3}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$\frac{-1}{2}$
cos(a)	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	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$
tan(a)	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	und	$-\sqrt{3}$	-1	$-\frac{\sqrt{3}}{3}$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	und	$-\sqrt{3}$	-1	$-\frac{\sqrt{3}}{3}$



Trigonometric Ratios: "SOHCAHTOA"

sin ɵ = Side Opposite / Hypotenuse

cos ɵ = Side Adjacent / Hypotenuse

tan ɵ = Side Opposite / Side Adjacent

Inverse Trigonometric Ratios:

csc ɵ = 1 / sin ɵ or Hypotenuse / Side Opposite

sec ɵ = 1 / cos ɵ or Hypotenuse / Side Adjacent

cot ɵ = 1 / tan ɵ or Side Adjacent / Side Opposite

Trigonometric Functions of an Angle in Standard Position:

sin ɵ = y / r csc ɵ = r / y

cos ɵ = x / r sec ɵ = r / x

tan ɵ = y / x cot ɵ = x / y

Law of Cosines:

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

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

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

Area of a Triangle:

$K = \frac{1}{2} bc \sin A$

$K = \frac{1}{2} c^2 (\sin A \sin B) / \sin C$

Hero's formula:

$K = \sqrt{s(s-a)(s-b)(s-c)}$

where $s = \frac{1}{2}(a+b+c)$

Law of Sines: a / sin A = b / sin B = c / sin C

The Ambiguous Case