

Trig Formulas:

$\sin^2(x) = \frac{1}{2}(1 - \cos(2x))$	$\tan x = \frac{\sin x}{\cos x}$
$\cos^2(x) = \frac{1}{2}(1 + \cos(2x))$	$\cot x = \frac{\cos x}{\sin x}$

$\sin^2(x) + \cos^2(x) = 1$
$\tan^2(x) + 1 = \sec^2(x)$

$\sec x = \frac{1}{\cos x}$	$\cos(-x) = \cos(x)$
$\csc x = \frac{1}{\sin x}$	$\sin(-x) = -\sin(x)$

Trigonometric Formulas

- $\sin^2 \theta + \cos^2 \theta = 1$
- $1 + \tan^2 \theta = \sec^2 \theta$
- $1 + \cot^2 \theta = \csc^2 \theta$
- $\sin(-\theta) = -\sin \theta$
- $\cos(-\theta) = \cos \theta$
- $\tan(-\theta) = -\tan \theta$
- $\sin(A + B) = \sin A \cos B + \sin B \cos A$
- $\sin(A - B) = \sin A \cos B - \sin B \cos A$
- $\cos(A + B) = \cos A \cos B - \sin A \sin B$
- $\cos(A - B) = \cos A \cos B + \sin A \sin B$
- $\sin 2\theta = 2 \sin \theta \cos \theta$
- $\cos 2\theta = \cos^2 \theta - \sin^2 \theta = 2 \cos^2 \theta - 1 = 1 - 2 \sin^2 \theta$
- $\tan \theta = \frac{\sin \theta}{\cos \theta} = \frac{1}{\cot \theta}$
- $\cot \theta = \frac{\cos \theta}{\sin \theta} = \frac{1}{\tan \theta}$
- $\sec \theta = \frac{1}{\cos \theta}$
- $\csc \theta = \frac{1}{\sin \theta}$
- $\cos^2 \theta = \frac{1}{2}(1 + \cos 2\theta)$
- $\sin^2 \theta = \frac{1}{2}(1 - \cos 2\theta)$