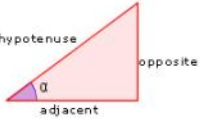


Trigonometry Ratios		$\sin \alpha = \frac{\text{opp.}}{\text{hip.}}$	<i>opp.</i> : opposite <i>hip.</i> : hypotenuse
		$\cos \alpha = \frac{\text{adj.}}{\text{hip.}}$	<i>adj.</i> : adjacent <i>hip.</i> : hypotenuse
		$\tan \alpha = \frac{\text{opp.}}{\text{adj.}}$	<i>opp.</i> : opposite <i>adj.</i> : adjacent
Fundamental Identities	$\sin^2 \alpha + \cos^2 \alpha = 1$	$\tan \alpha = \frac{\sin \alpha}{\cos \alpha}$	$\tan^2 \alpha + 1 = \frac{1}{\cos^2 \alpha}$
Exact Values	$\sin\left(\frac{\pi}{6}\right) = \frac{1}{2}$	$\cos\left(\frac{\pi}{6}\right) = \frac{\sqrt{3}}{2}$	$\tan\left(\frac{\pi}{6}\right) = \frac{\sqrt{3}}{3}$
	$\sin\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$	$\cos\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2}$	$\tan\left(\frac{\pi}{4}\right) = 1$
	$\sin\left(\frac{\pi}{3}\right) = \frac{\sqrt{3}}{2}$	$\cos\left(\frac{\pi}{3}\right) = \frac{1}{2}$	$\tan\left(\frac{\pi}{3}\right) = \sqrt{3}$
Angle Relationships	$\sin(-\alpha) = -\sin \alpha$	$\cos(-\alpha) = \cos \alpha$	$\tan(-\alpha) = -\tan \alpha$
	$\sin(\pi - \alpha) = \sin \alpha$	$\cos(\pi - \alpha) = -\cos \alpha$	$\tan(\pi - \alpha) = -\tan \alpha$
	$\sin(\pi + \alpha) = -\sin \alpha$	$\cos(\pi + \alpha) = -\cos \alpha$	$\tan(\pi + \alpha) = \tan \alpha$
	$\sin\left(\frac{\pi}{2} - \alpha\right) = \cos \alpha$	$\cos\left(\frac{\pi}{2} - \alpha\right) = \sin \alpha$	$\tan\left(\frac{\pi}{2} - \alpha\right) = \frac{1}{\tan \alpha}$
	$\sin\left(\frac{\pi}{2} + \alpha\right) = \cos \alpha$	$\cos\left(\frac{\pi}{2} + \alpha\right) = -\sin \alpha$	$\tan\left(\frac{\pi}{2} + \alpha\right) = -\frac{1}{\tan \alpha}$
	$\sin\left(\frac{3\pi}{2} - \alpha\right) = -\cos \alpha$	$\cos\left(\frac{3\pi}{2} - \alpha\right) = -\sin \alpha$	$\tan\left(\frac{3\pi}{2} - \alpha\right) = \frac{1}{\tan \alpha}$
	$\sin\left(\frac{3\pi}{2} + \alpha\right) = -\cos \alpha$	$\cos\left(\frac{3\pi}{2} + \alpha\right) = \sin \alpha$	$\tan\left(\frac{3\pi}{2} + \alpha\right) = -\frac{1}{\tan \alpha}$
	Trigonometric Equations	$\sin x = \sin \alpha \Leftrightarrow x = \alpha + 2k\pi \vee x = \pi - \alpha + 2k\pi, k \in \mathbb{Z}$	
$\cos x = \cos \alpha \Leftrightarrow x = \alpha + 2k\pi \vee x = -\alpha + 2k\pi, k \in \mathbb{Z}$			
$\tan x = \tan \alpha \Leftrightarrow x = \alpha + k\pi, k \in \mathbb{Z}$			
Sum Formulas	$\sin(a + b) = \sin a \times \cos b + \sin b \times \cos a$		
	$\cos(a + b) = \cos a \times \cos b - \sin a \times \sin b$		
	$\tan(a + b) = \frac{\tan a + \tan b}{1 - \tan a \times \tan b}$		
Difference Formulas	$\sin(a - b) = \sin a \times \cos b - \sin b \times \cos a$		
	$\cos(a - b) = \cos a \times \cos b + \sin a \times \sin b$		
	$\tan(a - b) = \frac{\tan a - \tan b}{1 + \tan a \times \tan b}$		
Double Angle Formulas	$\sin(2a) = 2 \times \sin a \times \cos a$		
	$\cos(2a) = \cos^2 a - \sin^2 a$		
	$\tan(2a) = \frac{2 \times \tan a}{1 - \tan^2 a}$		