

TRIGONOMETRY

Table of Trigonometric Ratios for $0^\circ, 30^\circ, 45^\circ, 60^\circ, 90^\circ$

θ Trigonometric Ratio	0°	30°	45°	60°	90°
$\sin \theta$	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1
$\cos \theta$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
$\tan \theta$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	undefined
$\operatorname{cosec} \theta$	undefined	2	$\sqrt{2}$	$\frac{2}{\sqrt{3}}$	1
$\sec \theta$	1	$\frac{2}{\sqrt{3}}$	$\sqrt{2}$	2	undefined
$\cot \theta$	undefined	$\sqrt{3}$	1	$\frac{1}{\sqrt{3}}$	0

Complementary angle

$\sin(90^\circ - \theta) = \cos \theta$	$\cos(90^\circ - \theta) = \sin \theta$	$\tan(90^\circ - \theta) = \cot \theta$
$\operatorname{cosec}(90^\circ - \theta) = \sec \theta$	$\sec(90^\circ - \theta) = \operatorname{cosec} \theta$	$\cot(90^\circ - \theta) = \tan \theta$

$(\sin \theta)^2 = \sin^2 \theta$	$(\operatorname{cosec} \theta)^2 = \operatorname{cosec}^2 \theta$
$(\cos \theta)^2 = \cos^2 \theta$	$(\sec \theta)^2 = \sec^2 \theta$
$(\tan \theta)^2 = \tan^2 \theta$	$(\cot \theta)^2 = \cot^2 \theta$