

Positive angle is angle measured in the anticlockwise direction from the positive x-axis.
 Negative angle is angle measured in the clockwise direction from the positive x-axis

FORMULA WHICH IS NOT GIVEN

$$\sin^2 A + \cos^2 A = 1$$

$$\sec^2 A = 1 + \tan^2 A$$

$$\operatorname{cosec}^2 A = 1 + \cot^2 A$$

$$\sin 2A = 2 \sin A \cos A$$

$$\begin{aligned} \cos 2A &= \cos^2 A - \sin^2 A \\ &= 2 \cos^2 A - 1 \\ &= 1 - 2 \sin^2 A \end{aligned}$$

$$\sin (A \pm B) = \sin A \cos B \pm \cos A \sin B$$

$$\cos (A \pm B) = \cos A \cos B \mp \sin A \sin B$$

$$\tan (A \pm B) = \frac{\tan A \pm \tan B}{1 \mp \tan A \tan B}$$

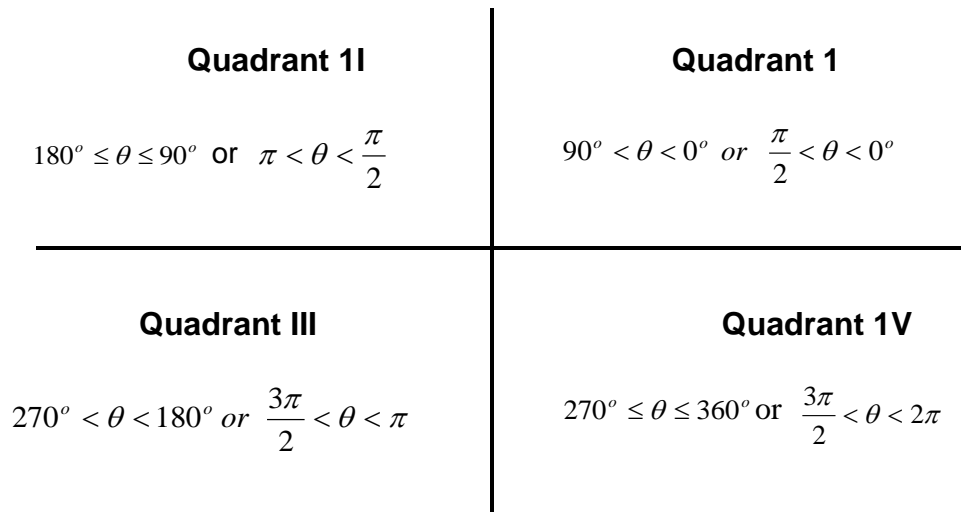
FORMULA GIVEN

$$\operatorname{secant} \theta = \sec \theta = \frac{1}{\cos \theta}$$

$$\operatorname{cosecant} \theta = \operatorname{cosec} \theta = \frac{1}{\sin \theta}$$

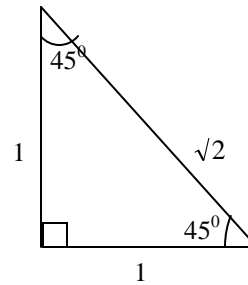
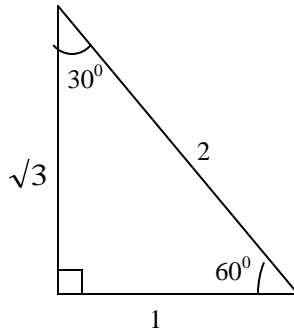
$$\begin{aligned} \operatorname{cotangent} \theta &= \cot \theta = \frac{1}{\tan \theta} \\ &= \frac{\cos \theta}{\sin \theta} \end{aligned}$$

$$\operatorname{tangent} \theta = \frac{\sin \theta}{\cos \theta}$$



A Cartesian plane can be divided into four quadrants
 One full rotation = 360° or 2π

SPECIAL ANGLES



θ	30°	45°	60°
$\sin \theta$	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$
$\cos \theta$	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$
$\tan \theta$	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$

θ	0°	90°	180°	270°	360°
$\sin \theta$	0	1	0	-1	0
$\cos \theta$	1	0	-1	0	1