

# UNIT CIRCLE REFERENCE CHART

Coordinates ( $\cos \theta$ ,  $\sin \theta$ )

0 90 180 270

## Quadrant I (0 - 90)

Degrees	Radians	(x, y)
0	0	(1, 0)
30	$\pi/6$	$(\sqrt{3}/2, 1/2)$
45	$\pi/4$	$(\sqrt{2}/2, \sqrt{2}/2)$
60	$\pi/3$	$(1/2, \sqrt{3}/2)$
90	$\pi/2$	(0, 1)

## Quadrant II (90 - 180)

120	$2\pi/3$	$(-1/2, \sqrt{3}/2)$
135	$3\pi/4$	$(-\sqrt{2}/2, \sqrt{2}/2)$
150	$5\pi/6$	$(-\sqrt{3}/2, 1/2)$
180	$\pi$	(-1, 0)

## Quadrant III (180 - 270)

Degrees	Radians	(x, y)
210	$7\pi/6$	$(-\sqrt{3}/2, -1/2)$
225	$5\pi/4$	$(-\sqrt{2}/2, -\sqrt{2}/2)$
240	$4\pi/3$	$(-1/2, -\sqrt{3}/2)$
270	$3\pi/2$	(0, -1)

## Quadrant IV (270 - 360)

300	$5\pi/3$	$(1/2, -\sqrt{3}/2)$
315	$7\pi/4$	$(\sqrt{2}/2, -\sqrt{2}/2)$
330	$11\pi/6$	$(\sqrt{3}/2, -1/2)$

360

$2\pi$

(1, 0)

$$\sin(\theta) = y \cos(\theta) = x \tan(\theta) = y/x \quad r = 1$$

Unit Circle Study Template • Modern Mathematics Series •  $(x^2 + y^2 = 1)$