1 Table of values

$f(x)$	$f(0)$	$f\left(\frac{\pi}{6}\right)$	$f\left(\frac{\pi}{4}\right)$	$f\left(\frac{\pi}{3}\right)$	$f\left(\frac{\pi}{2}\right)$	$f\left(\frac{2\pi}{3}\right)$	$f\left(\frac{3\pi}{4}\right)$	$f\left(\frac{5\pi}{6}\right)$	$f(\pi)$
$\sin(x)$	0	$\frac{1}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{\sqrt{3}}{2}$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0
$\cos(x)$	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{\sqrt{2}}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{1}{\sqrt{2}}$	$-\frac{\sqrt{3}}{2}$	-1
$\tan(x)$	0	$\frac{1}{\sqrt{3}}$	1	$\sqrt{3}$	$-$	$\sqrt{3}$	-1	$-\frac{1}{\sqrt{3}}$	0

2 Trigonometric Identities

$$\csc(x) = \frac{1}{\sin(x)}, \qquad \sec(x) = \frac{1}{\cos(x)} \qquad \tan(x) = \frac{\sin(x)}{\cos(x)}$$
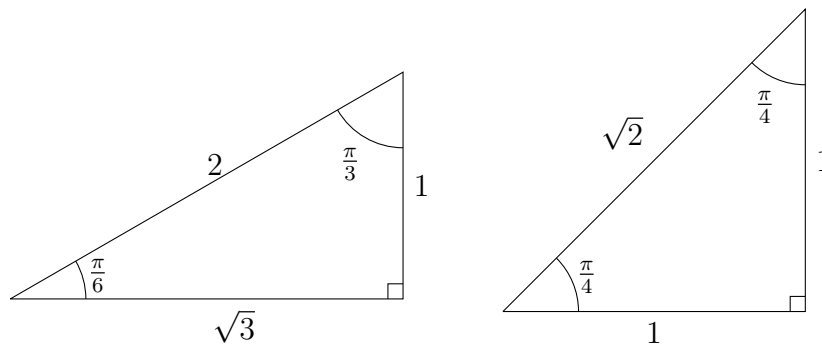
$$\cot(x) = \frac{\cos(x)}{\sin(x)}, \qquad \sin(-x) = -\sin(x) \qquad \cos(-x) = \cos(x)$$

$$\tan(-x) = -\tan(x), \qquad \tan(x+\pi) = \tan(x) \qquad \cos(x+2\pi) = \cos(x)$$

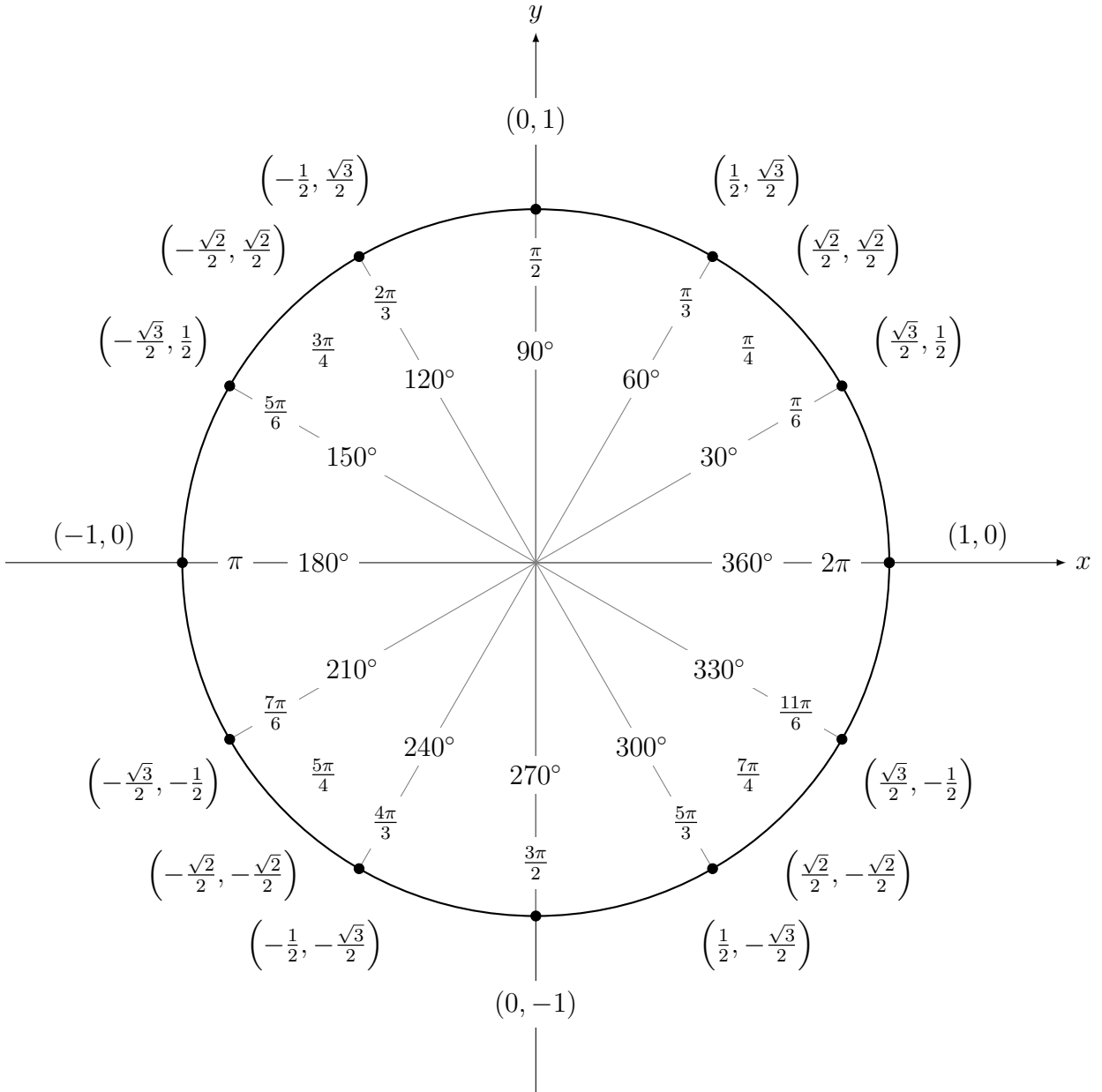$$\sin(x+\pi) = -\sin(x), \qquad \cos(x+\pi) = -\cos(x) \qquad \sin(x+2\pi) = \sin(x)$$

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

3 Right Triangles

4   Unit Circle

The unit circle[1]

$(0,1)$

$\left(-\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$

$\left(\frac{1}{2}, \frac{\sqrt{3}}{2}\right)$

$\left(-\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$

$\left(\frac{\sqrt{2}}{2}, \frac{\sqrt{2}}{2}\right)$

$\frac{\pi}{2}$

$\left(-\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$

$\frac{2\pi}{3}$

$\frac{\pi}{3}$

$\left(\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$

$\frac{3\pi}{4}$

$90°$

$\frac{\pi}{4}$

$\frac{5\pi}{6}$

$120°$

$60°$

$\frac{\pi}{6}$

$150°$

$30°$

$(-1,0)$

π — $180°$

$360°$ — 2π

$(1,0)$

x

$210°$

$330°$

$\frac{7\pi}{6}$

$\frac{11\pi}{6}$

$240°$

$300°$

$\left(-\frac{\sqrt{3}}{2}, -\frac{1}{2}\right)$

$\frac{5\pi}{4}$

$270°$

$\frac{7\pi}{4}$

$\left(\frac{\sqrt{3}}{2}, -\frac{1}{2}\right)$

$\frac{4\pi}{3}$

$\frac{5\pi}{3}$

$\left(-\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$

$\frac{3\pi}{2}$

$\left(\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$

$\left(-\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$

$\left(\frac{1}{2}, -\frac{\sqrt{3}}{2}\right)$

$(0,-1)$

y

---

[1]Image code written by Supreme Aryal