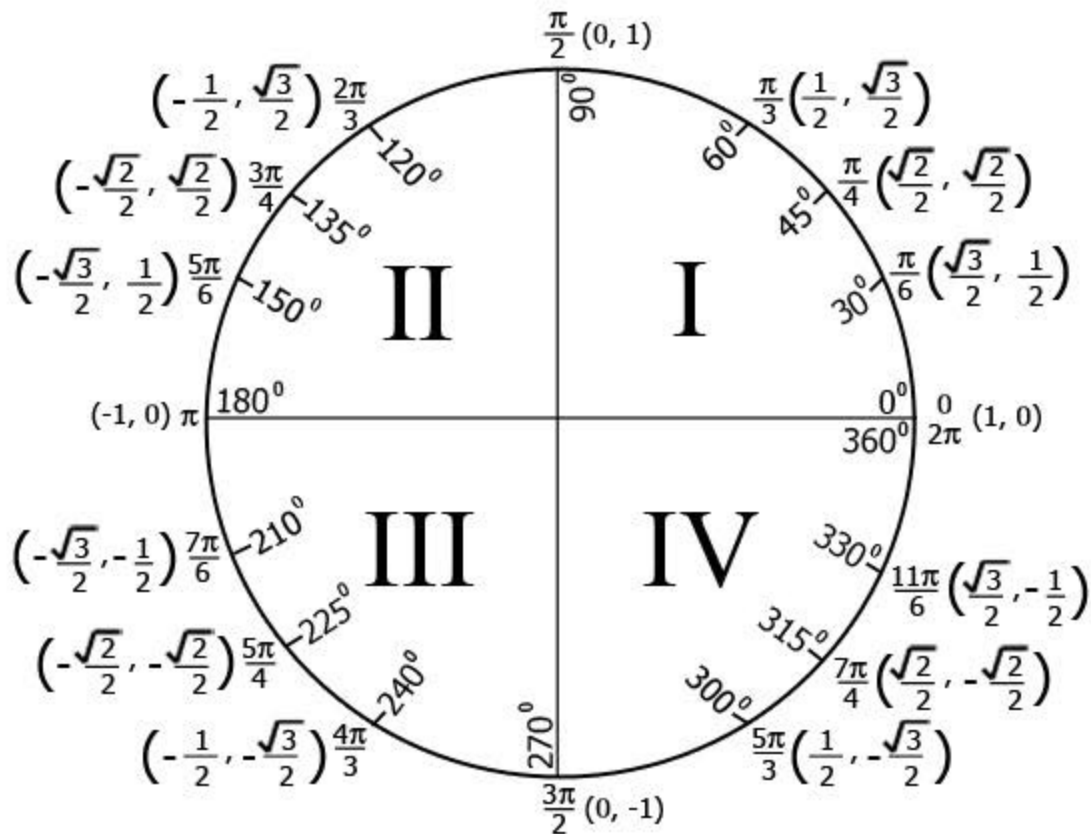


## Unit Circle

Any point along the unit circle has an x-coordinate whose value is equal to the cosine of the angle and a y-coordinate whose value is equal to the sine of the angle.

Ex:  $\cos \frac{\pi}{3} = \frac{1}{2}$  and  $\sin \frac{\pi}{3} = \frac{\sqrt{3}}{2}$



| Angle / Function | $0^\circ$ | $30^\circ = \frac{\pi}{6}$ | $45^\circ = \frac{\pi}{4}$ | $60^\circ = \frac{\pi}{3}$ | $90^\circ = \frac{\pi}{2}$ |
|------------------|-----------|----------------------------|----------------------------|----------------------------|----------------------------|
| Sin              | 0         | $\frac{1}{2}$              | $\frac{\sqrt{2}}{2}$       | $\frac{\sqrt{3}}{2}$       | 1                          |
| Cos              | 1         | $\frac{\sqrt{3}}{2}$       | $\frac{\sqrt{2}}{2}$       | $\frac{1}{2}$              | 0                          |
| Tan              | 0         | $\frac{\sqrt{3}}{3}$       | 1                          | $\sqrt{3}$                 | Undefined                  |
| Cot              | Undefined | $\sqrt{3}$                 | 1                          | $\frac{\sqrt{3}}{3}$       | 0                          |