

# Unit Circle Reference

Q I (+,+) Q II (-,+) Q III (-,-) Q IV (+,-) 45 ( $\pi/4$ ) ( $\sqrt{2}/2, \sqrt{2}/2$ )

## COORDINATES

$$x = \cos(\theta)$$

$$y = \sin(\theta)$$

$$\tan(\theta) = y / x$$

## COMMON ANGLES

$$30 : \pi/6 : (\sqrt{3}/2, 1/2)$$

$$45 : \pi/4 : (\sqrt{2}/2, \sqrt{2}/2)$$

$$60 : \pi/3 : (1/2, \sqrt{3}/2)$$

## RECIPROCAL IDENTITIES

$$\sec(\theta) = 1 / x$$

$$\csc(\theta) = 1 / y$$

$$\cot(\theta) = x / y$$

## PYTHAGOREAN IDENTITY

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

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