

Fundamental Trig Identities

RECIPROCAL IDENTITIES

$$\sin(x) = \frac{1}{\csc(x)}$$

$$\cos(x) = \frac{1}{\sec(x)}$$

$$\tan(x) = \frac{1}{\cot(x)}$$

$$\csc(x) = \frac{1}{\sin(x)}$$

$$\sec(x) = \frac{1}{\cos(x)}$$

$$\cot(x) = \frac{1}{\tan(x)}$$

QUOTIENT IDENTITIES

$$\tan(x) = \frac{\sin(x)}{\cos(x)}$$

$$\cot(x) = \frac{\cos(x)}{\sin(x)}$$

PYTHAGOREAN IDENTITIES

$$\sin^2(x) + \cos^2(x) = 1$$

$$1 + \tan^2(x) = \sec^2(x)$$

$$1 + \cot^2(x) = \csc^2(x)$$