Calculus I SI Worksheet

Trigonometric Identities

Reciprocal Identities

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

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

Pythagorean Identities

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

Quotient Identities

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

Double Angle Identities

$\sin(2x) = 2\sin x \cos x$

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

Unit Circle, Fill in the blank