

Pre-Calculus Ch5 Identity Summary Sheet

Basic Trig Definitions/ Identities

$$1. \sin x = \frac{y}{r} = \frac{\text{opp}}{\text{hyp}}$$

$$2. \cos x = \quad =$$

$$3. \tan x = \quad =$$

Reciprocal Identities

$$1. \sec x = \frac{1}{\cos x}$$

$$2. \csc x =$$

$$3. \cot x =$$

$$4. \cos x =$$

$$5. \sin x =$$

$$6. \tan x =$$

Quotient Identities

$$1. \tan x =$$

$$2. \cot x =$$

Cofunction Identities

$$1. \sin\left(\frac{\pi}{2} - x\right) =$$

$$2. \cos\left(\frac{\pi}{2} - x\right) =$$

$$3. \tan\left(\frac{\pi}{2} - x\right) =$$

$$4. \csc\left(\frac{\pi}{2} - x\right) =$$

$$5. \sec\left(\frac{\pi}{2} - x\right) =$$

$$6. \cot\left(\frac{\pi}{2} - x\right) =$$

Even/Odd Identities

$$1. \sin(-x) =$$

$$2. \cos(-x) =$$

$$3. \tan(-x) =$$

$$4. \csc(-x) =$$

$$5. \sec(-x) =$$

$$6. \cot(-x) =$$

Pythagorean Identities

$$1.$$

$$2.$$

$$3.$$

Sum and Difference Identities

$$1. \sin(a + b) =$$

$$2. \sin(a - b) =$$

$$3. \cos(a + b) =$$

$$4. \cos(a - b) =$$

$$5. \tan(a + b) =$$

$$6. \tan(a - b) =$$

Double Angle Identities

$$1. \sin 2x =$$

$$2. \cos 2x =$$

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$$3. \tan 2x =$$

Power-Reducing Identities

$$1. \sin^2 x =$$

$$2. \cos^2 x =$$

$$3. \tan^2 x =$$