

Name: _____

Basic Identities Worksheet

Simplify the following trig expressions as much as possible using the identities.

1.) $\frac{\cot A}{\tan A}$

2.) $\sin^2 \theta \cos^2 \theta - \cos^2 \theta$

3.) $\cos x + \sin x \tan x$

4.) $\frac{\sin^2 \theta \cot \theta}{\cos \theta}$

5.) $\frac{\cos \theta}{\sec \theta - \tan \theta}$

6.) $\tan A \cdot \cos^2 A$

7.) $\frac{\tan \beta}{\cot \beta}$

8.) $\sin \theta \cot \theta$

9.) $\cos x \cdot \tan x \cdot \csc x$

10.) $\frac{\csc \theta}{1 + \cot^2 \theta}$

11.) $\cos^4 \theta + 2 \cos^2 \theta \sin^2 \theta + \sin^4 \theta$

12.) $\sin x + \cos x \tan x$

13.) $(1 - \sin x)(1 + \sin x)$

14.) $\sin x - \sin x \cos^2 x$

15.) $\cos x + \tan x \sin x$

16.) $\sin^3 x + \sin x \cos^2 x$

17.) $\frac{\csc \theta - \sin \theta}{\csc \theta}$

18.) $\frac{\sin \theta}{\cos \theta} + \frac{\cos \theta}{1 + \sin \theta}$

19.) $\sin^3 \theta + \sin \theta \cos^2 \theta$

20.) $\frac{\csc x - \sin x}{\csc x}$