

WS3--Fundamental Verifications

Name _____

Verify each identity. Show ALL steps.

1. $\csc \theta \cos \theta \tan \theta = 1$

2. $-\tan x \cos x = -\sin x$

3. $\cos \theta (\csc \theta - \sec \theta) = \cot \theta - 1$

4. $\sec x - \sec x \sin^2 x = \cos x$

5. $1 - \sin \theta = \tan \theta (\cot \theta - \cos \theta)$

6. $\csc x - \sin x = \cot x \cos x$

7. $\frac{\tan x \cot x}{\csc x} = \sin x$

8. $\sin^2 x (1 + \cot^2 x) = 1$

9. $\sin x \tan x = \frac{1 - \cos^2 x}{\cos x}$

10. $\frac{\csc^2 x}{\cot x} = \csc x \sec x$

11. $\frac{\tan^2 x}{\sec x} = \sec x - \cos x$

12. $\frac{\sin x}{\csc x} + \frac{\cos x}{\sec x} = 1$

13. $\tan x + \frac{\cos x}{1 + \sin x} = \sec x$

14. $\frac{\cos \theta}{1 - \sin^2 \theta} = \sec \theta$

15. $\frac{2 - \sec^2 \theta}{\sec \theta} = \frac{1 - 2 \sin^2 \theta}{\cos \theta}$