

WS2--Fundamental Verifications

Name _____

Verify each identity. Show ALL steps.

1. $\csc^2 x - \cos^2 x \csc^2 x = 1$

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

3. $\frac{\cot x}{1 + \cot^2 x} = \sin x \cos x$

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

5. $\csc x \cos^2 x + \sin x = \csc x$

6. $\sin x \left(\frac{\cot x}{\sec x} + \csc x \right) = \cos^2 x + 1$

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

8. $\frac{\cos x + \tan x}{\sin x} = \sec x + \cot x$

9. $\frac{1}{\sec x - \tan x} = \sec x + \tan x$

10. $1 + \cos x = \cot x(\sin x + \tan x)$