

Name: _____ Date: _____ Pd: _____

Prove that each equation is an identity.

1. $\cos^2 x \csc x \sec x = \cot x$

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

3. $(1 + \sin x)(1 - \sin x) = \cos^2 x$

4. $\frac{1 + \sin x}{\cos x} = \frac{\cos x}{1 - \sin x}$

5. $\frac{\csc^2 x}{\cot^2 x} = 1 + \tan^2 x$