Algebra 2/Trig Honors Name_____

Verify each identity.

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

2. $\cos x + \sin x \tan x = \sec x$

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

4. $\frac{1}{1-\sin x} + \frac{1}{1+\sin x} = 2sec^2x$

5. $\frac{\sec x \sin x}{\tan x + \cot x} = sin^2x$