Accel Precalc Worksheet #2: Verifying Trig Identities Name _____

Unit 7: Trig Identities

Verify each identity. All steps should be shown.

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

2. $\sin^2\alpha(\csc^2\alpha+\sec^2\alpha)=\sec^2\alpha$

3. $\cos^2\theta-\sin^2\theta=1-2\sin^2\theta$

4. $\cos^2 t-\sin^2 t=2\cos^2 t-1$

5. $\cot\beta+\tan\beta=\csc\beta\sec\beta$

6. $\sec^2\alpha+\csc^2\alpha=\sec^2\alpha\csc^2\alpha$

7. $(\cot\beta+\tan\beta)^2=\csc^2\beta\sec^2\beta$

8. $\dfrac{1+\cos x}{1-\cos x}=\dfrac{\sec+1}{\sec-1}$