162 Quiz 13 Name: _____

1. Verify the identity $\sec(x) - \cos(x) = \sin(x)\tan(x)$

2. Start with the identity $\sin^2(x) + \cos^2(x) = 1$ to get the corresponding identity with $\tan^2(x)$

3. Use the substitution $x = 2\tan(\theta)$ to rewrite $\sqrt{x^2+4}$ as a trigonometric function of θ

4. Show that $\dfrac{1}{1+\sin(x)} + \dfrac{1}{1-\sin(x)} = 2\sec^2(x)$