

Algebra 2 Trigonometry
Verifying Trig Identities #5

Name _____

Verify the following identities on separate paper:

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

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

$$3. \frac{\sin x}{\csc x} + \frac{\cos x}{\sec x} = 1$$

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

$$5. \frac{\sin x}{1 + \cos x} + \frac{1 + \cos x}{\sin x} = 2 \csc x$$

$$6. \frac{\sec x}{\tan x + \cot x} = \sin x$$

$$7. \frac{1}{\sin x - 1} + \frac{1}{\sin x + 1} = -2 \tan x \sec x$$

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