

7.2
 Verifying Trig Identities
 2.1.16
 Lesson 10

Warm-up
 Write the Pythagorean identities.

Verify that
 $\sec^2 x - \tan x \cot x = \tan^2 x$

Pick complicated side to simplify	$\sec^2 x - \tan x \cot x = \tan^2 x$	
Simplify by using identities	$\sec^2 x - \tan x \cot x = \tan^2 x$ $\sec^2 x - \frac{\sin}{\cos} x \frac{\cos}{\sin} x = \tan^2 x$	Reciprocal identity
	$\sec^2 x - 1 = \tan^2 x$	Multiply and simplify
State which identity proves it true	$\sec^2 x - 1 = \tan^2 x$	True by Pythagorean identity

We Try:

Verify that

$$\csc x - 1 = \frac{\cot^2 x}{\csc x + 1}$$

Verify that

$$\frac{\cos y}{1 - \sin y} = \frac{1 + \sin y}{\cos y}$$

Verify that

$$\sin x \cos x \tan x + \cos^2 x = 1$$

Exit Slip

Verify that

$$\cos B \cot B = \csc B - \sin B$$