Trig 7.2

Use basic trig identities to verify (prove it...)
Find numerical values of trig functions

parking lot

identity

CSI

verify

Identity sorting activ.

.

"I'm not sure what to do next. But here is something I know
how to do..."

https://www.youtube.com/watch?v=5swxGdLtayw

Suggestions for Verifying Trigonometric Identities	• Transform the more complicated side of the equation into the simpler side. • Substitute one or more basic trigonometric identities to simplify expressions. • Factor or multiply to simplify expressions. • Multiply expressions by an expression equal to 1. • Express all trigonometric functions in terms of sine and cosine.

•All the rules of algebra (factoring, distributive prop. etc) apply

Goal: get both sides to be identical

CSI...
whiteboards

Verify that each equation is an identity.

5. $\cos x = \dfrac{\cot x}{\csc x}$

Get both sides to be the same...
All the rules of algebra apply.

Example **1** Verify that $\sec^2 x - \tan x \cot x = \tan^2 x$ is an identity.

3 Verify that $\dfrac{\sin A}{\csc A} + \dfrac{\cos A}{\sec A} = \csc^2 A - \cot^2 A$ is an identity.

6. $\dfrac{1}{\tan x + \sec x} = \dfrac{\cos x}{\sin x + 1}$

9. $(\sin A - \cos A)^2 = 1 - 2\sin^2 A \cot A$

identity sort

Sort of like an identity (simplify first) then answer the question

4 **Find a numerical value of one trigonometric function of x if $\frac{\cot x}{\cos x} = 2$.**

$$\frac{\frac{1}{\cos x} \cdot \frac{\cos x}{\sin x}}{\cos x} = 2$$

$$\frac{1}{\sin x} = 2 \qquad \boxed{\csc x = 2} \qquad WB\ 7.2$$

$$\sin x = \qquad\qquad \tan =$$