

Daily Agenda

Learning Target: I can use the properties of trig functions to prove a trig identity.

Homework
Worksheet

Assessment
8.6 Quiz - 3/7

No winter lasts forever; no spring skips its turn.
-Hal Borland

Nov 15-8:24 PM

$$\frac{1-\cos^2 x}{\tan x} = \sin x \cos x$$

$$\frac{\sin^2 x}{\tan x} =$$

$$\frac{\sin^2 x}{\frac{\sin x}{\cos x}} =$$

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

$$\sin x \cos x = \sin x \cos x$$

Mar 6-11:18 AM

$$\frac{(1+\sin x) \cdot 1}{(1+\sin x) - \sin x} = \sec^2 x + \sec x \tan x$$

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

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

$$\frac{1}{\cos^2 x} + \frac{1 \cdot \sin x}{\cos x \cdot \cos x}$$

$$\sec^2 x + \sec x \tan x = \sec^2 x + \sec x \tan x$$

Mar 6-11:19 AM

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

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

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

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

$$= \frac{1+\sin x}{(1+\sin x)(1-\sin x)}$$

$$\frac{1}{1-\sin x} = \frac{1}{1-\sin x}$$

Mar 6-11:19 AM

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

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

$$= \frac{\sin^2 x + \cos^2 x + \sin x}{\cos^2 x}$$

$$\frac{1+\sin x}{\cos^2 x}$$

$$\frac{1+\sin x}{1-\sin^2 x}$$

Mar 6-11:26 AM

$$7) \sin^3 x \cos^2 x = \cos^2 x \sin x - \cos^4 x \sin x$$

$$\sin^2 x \cdot \sin x \cdot \cos^2 x =$$

$$(1-\cos^2 x) \sin x \cos^2 x =$$

$$\sin x \cos^2 x - \sin x \cos^4 x =$$

$$\cos^2 x \sin x - \cos^4 x \sin x =$$

Mar 6-11:29 AM

$$\begin{aligned}\cos^2 x + \tan^2 x \cos^2 x &= 1 && x^2 + xy^2 \\ \cos^2 x (1 + \tan^2 x) &= 1 && x^2(1+y^2) \\ \cos^2 x \cdot \sec^2 x &= 1 \\ \cos^2 x \cdot \frac{1}{\cos^2 x} &= 1 \\ 1 &= 1\end{aligned}$$

Mar 6-11:31 AM