

Bellwork Hon Alg 2 Monday, June 5, 2017

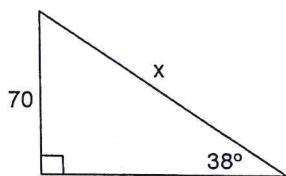
1. Verify each trigonometric identity.

a) $\sin\theta(\csc^2\theta - 1) = \frac{\cos\theta}{\tan\theta}$

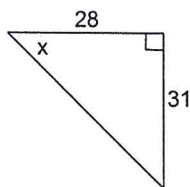
b) $\frac{\sec x}{\cot x + \tan x} = \frac{\tan x}{\sec x}$

2. Find the value of x in each triangle to the nearest hundredth.

a) $x =$



b) $x =$



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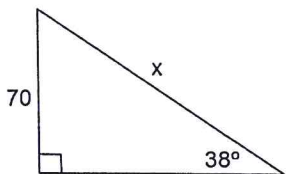
1. Verify each trigonometric identity.

a) $\sin\theta(\csc^2\theta - 1) = \frac{\cos\theta}{\tan\theta}$

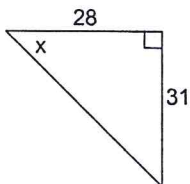
b) $\frac{\sec x}{\cot x + \tan x} = \frac{\tan x}{\sec x}$

2. Find the value of x in each triangle to the nearest hundredth.

a) $x =$



b) $x =$



$$(1) a) \sin \theta (\csc^2 \theta - 1) = \frac{\cos \theta}{\tan \theta}$$

$$\sin \theta (\cot^2 \theta) = \frac{\cos \theta}{\frac{\sin \theta}{\cos \theta}}$$

$$\sin \theta \cdot \frac{\cos^2 \theta}{\sin^2 \theta} = \cos \theta \cdot \frac{\cos \theta}{\sin \theta}$$

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

$$b) \frac{\sec x}{\cot x + \tan x} = \frac{\tan x}{\sec x}$$

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

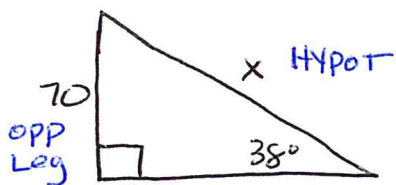
$$\frac{\sin x}{\cos^2 + \sin^2}$$

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

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

$$\sin x = \sin x$$

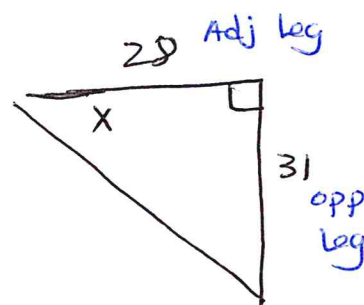
(2) a)



$$\sin 38 = \frac{70}{x}$$

$$x = 113.70$$

b)



$$\tan x = \frac{31}{28}$$

$$\angle x = \tan^{-1}\left(\frac{31}{28}\right)$$

$$\angle x = 47.91^\circ$$