

Pre-Cal CW 5.2-5.3 Trig Identities and Solving Trig Equations

Solve the trigonometric function for ALL POSSIBLE VALUES IN DEGREES.

1.

$$\tan x \sec x = 2 \tan x$$

Solve the trigonometric function for ALL POSSIBLE VALUES IN RADIANS:

2. $2 \cos^2 x - \sin x - 1 = 0$

Solve each trigonometric function IN THE INTERVAL $[0, 360^\circ)$:

3. $4 \cos^2 \theta - 3 = 0$

4. $9 \tan \theta + 3\sqrt{3} = 0$

Solve each trigonometric function IN THE INTERVAL $[0, 2\pi)$:

5. $\sin x = \cos x$

6. $2 \cos 2x + 1 = 0$

Use the fundamental identities to simplify each expression.

7. $\cos^2 x(1 - \sec^2 x)$

Verify each identity.

8. $\tan^2 \theta \sin^2 \theta = \tan^2 \theta - \sin^2 \theta$

