

Name: _____

Date: _____

Learning Goal 6.1

Using identities to reduce complexity in expressions and solve equations.

Example Write a general equation for the solution(s) of $\tan x + 2 \sin x \tan x = 0$.**Example** Solve $\sin 2x - \sin x = 0, 0 \leq x < 2\pi$.**Example** Provide a general solution for the equation $2 \cos x + 1 - \sin^2 x = 3$.

Example Solve the following equation over the domain $0 \leq x < 360^\circ$.

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

Example Solve $3 \sec x = 15$, $\frac{3\pi}{2} < x < 2\pi$. Round your solution to the nearest hundredth.