Section 6.4 Solving Trigonometric Equations Using Identities

Trigonometric Identities

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 $\sin 2x - \sin x = 0$, $0 \le x < 2\pi$.

Example Provide a general solution for the equation $2 \cos x + 1 - \sin^2 x = 3$.

Trigonometric Identities

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

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

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