Name: _____ Date: _____

PCH: Even More General Solutions to Trig Equations Ms. Loughran

Do Now:

Find : (a) all solutions of the equation.

(b) all solutions of the equation n the interval $[-\pi, \pi]$.

1. $2\sin x \tan x - \tan x = 1 - 2\sin x$

Classwork:

Find: (a) all solutions of each equation.

(b) all solutions of the equation in the indicated interval.

1. $\sqrt{3}\csc x - 2 = 0 \quad [-3\pi, \pi]$

2. $\cos^2 x - \cos x = 0 \quad [0, 4\pi]$

3. $\cos 2x = \frac{1}{2}$ $\left[-\frac{\pi}{2}, \pi\right]$

4. $\sin x = \cos x$ $\left[0, 3\pi\right]$

5. $\frac{\sec x}{\cos x} - \frac{1}{2}\sec x = 0$ $\left[-2\pi, 2\pi\right]$

6. $\cos^2 x + \frac{1}{2}\sin x - \frac{1}{2} = 0$ $\left[0, 2\pi\right]$