Daily Agenda

Learning Target: I can solve trig equations in the indicated domain.

Homework
8.8 Worksheet Day 2

Assessments
Unit 8B Test - 3/17

All life is an experiment. The more experiments you make, the
-Ralph Waldo Emerson

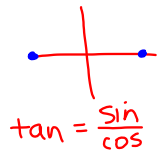
Nov 15-8:24 PM

② $\tan x \sec x - \tan x = 0$

$\tan x(\sec x - 1) = 0$

$\tan x = 0 \quad \sec x = 1$

$x = 0, 180°$



$\tan = \frac{\sin}{\cos}$

Mar 13-11:24 AM

⑥ $3 - 3\sin x - 2\cos^2 x = 0$

$3 - 3\sin x - 2(1 - \sin^2 x) = 0$

$3 - 3\sin x - 2 + 2\sin^2 x = 0$

$2\sin^2 x - 3\sin x + 1 = 0$

$(2\sin x - 1)(\sin x - 1) = 0$

$2\sin x - 1 = 0 \quad \sin x - 1 = 0$

$\sin x = \frac{1}{2} \quad \sin x = 1$

$x = 30°, 150°, 90°$

Mar 13-11:25 AM

8.8 Solving Trig Equations

Solve the equation in the indicated domain

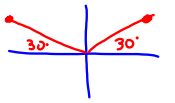
$2\sin(x + 47°) = 1$

$x \in [0°, 360°)$

adjust the domain

$[47°, 407°)$

$\sin(x + 47°) = \frac{1}{2}$



$x + 47° = 150°, 390°$

$-47° \quad -47° \quad -47°$

$x = 103°, 343°$

Mar 15-9:06 AM

Solve the equation in the indicated domain

$\cos(x - 12°) = \frac{\sqrt{2}}{2}$ $\quad x \in [0°, 360°)$

Mar 15-9:06 AM

Solve the equation in the indicated domain

$\sin(2x - 32°) = \frac{1}{2}$ $\quad x \in [0°, 360°)$

$[0°, 720°)$

$[-32°, 688°)$

$2x - 32° = 30°, 150°, 390°, 510°$

$+32 \quad +32 \quad +32 \quad +32 \quad +32$

$2x = 62°, 182°, 422°, 542°$

$x = 31°, 91°, 211°, 271°$

Mar 15-9:06 AM

Solve the equation in the indicated domain

$4\sin x\cos x = \sqrt{3}$ $x \in [0, 2\pi)$

$2(2\sin x\cos x) = \sqrt{3}$ $[0, 4\pi)$

$2\sin 2x = \sqrt{3}$ $2x = \frac{\pi}{3}, \frac{2\pi}{3}, \frac{7\pi}{3}, \frac{8\pi}{3}$

$\sin 2x = \frac{\sqrt{3}}{2}$ $x = \frac{\pi}{6}, \frac{\pi}{3}, \frac{7\pi}{6}, \frac{4\pi}{3}$

Mar 15-9:06 AM