

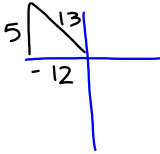
Daily Agenda

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

Homework	Assessments
8.8 Worksheet	Unit 8B Test - 3/17

To be yourself in a world that is constantly trying to make you else is the greatest accomplishment.
-Ralph Waldo Emerson

Nov 15-8:24 PM



$$1 - 2\sin^2 A$$

$$1 - 2\left(\frac{5}{13}\right)^2$$

$$1 - 2\left(\frac{25}{169}\right)$$

$$\left(\frac{169}{169}\right) - \frac{50}{169} = \frac{119}{169}$$

Mar 10-11:08 AM

8.8 Solving Trig Equations

Solve the equation in the indicated domain

$$2\cos x + \sqrt{3} = 0 \quad x \in [0^\circ, 360^\circ)$$

$$\frac{2\cos x}{2} = \frac{-\sqrt{3}}{2}$$

$$\cos x = \frac{-\sqrt{3}}{2}$$

$$\cos^{-1}\left(\frac{-\sqrt{3}}{2}\right) = x$$

$x = 150^\circ, 210^\circ$

Mar 15-9:06 AM

Solve the equation in the indicated domain

$$4\csc^2 x + 4\csc x + 1 = 0 \quad x \in [0^\circ, 360^\circ)$$

$$4a^2 + 4a + 1 = 0 \quad a = \csc x$$

$$(2a + 1)(2a + 1) = 0$$

$$(2\csc x + 1)(2\csc x + 1) = 0$$

$$2\csc x + 1 = 0$$

$$2\csc x = -1$$

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

no solution

Mar 15-9:06 AM

Solve the equation in the indicated domain

$$2\sin^2 x = -\sin x \quad x \in [0^\circ, 360^\circ)$$

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

$$\sin x (2\sin x + 1) = 0 \quad \sin x = -\frac{1}{2}$$

$x = 0^\circ, 180^\circ, 210^\circ, 330^\circ$

Mar 15-9:06 AM

Solve the equation in the indicated domain

$$\tan^2 x - \sec x - 1 = 0 \quad x \in [0^\circ, 360^\circ)$$

$$(\sec^2 x - 1) - \sec x - 1 = 0 \quad x = 60^\circ, 300^\circ, 180^\circ$$

$$\sec^2 x - \sec x - 2 = 0 \quad a = \sec x$$

$$(a^2 - a - 2) = 0 \quad \sec x = 2$$

$$(\sec x - 2)(\sec x + 1) = 0 \quad \sec x = -1$$

Mar 15-9:06 AM