

Lesson 4.4 Trigonometric Equations

Lesson 4.4: Introduction to Trigonometric Equations

Notation:

Set Builder Notation	Words	Interval Notation
$0 \leq x \leq 2\pi$		
$0 < x \leq 2\pi$		
$0 \leq x < 2\pi$		

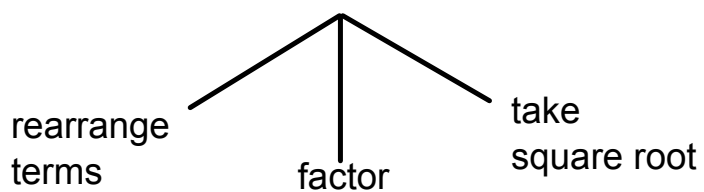
Review: Math 2200

Solve: $2 \cos \theta - 1 = 0$ where $0^\circ \leq \theta \leq 360^\circ$

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Solve the following trigonometric equations in the specified domain



Example 1: Solve $5\sin\theta + 2 = 1 + 3\sin\theta$ where $0 \leq \theta < 2\pi$

Example 2: $3\csc\theta - 6 = 0$ where $0^\circ < \theta \leq 360^\circ$



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Example 3: $\tan^2 \theta - 5 \tan \theta + 4 = 0$ where $0^\circ \leq \theta < 2\pi$

Example 4: $\sin^2 \theta - 1 = 0$



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Example 5: $2\cos^2 \theta + 5\cos \theta - 3 = 0$ where $0^\circ \leq \theta < 2\pi$

Example 6: Write the general solution for $\tan^2 \theta = 4 \tan \theta$

Worksheet