

## Solving Trigonometric Equations

Solve each equation on the interval  $0 \leq x \leq 2\pi$ .

1)  $\tan^2 x + \tan x(\sqrt{3} + 1) + \sqrt{3} = 0$

2)  $\cot^4 x = 4 \csc^2 x - 7$

3)  $\sec^2 x - \sec x$

$= 6 \sin x$

5)  $\cos 2x = \cos x$

$\sqrt{2} \csc x + 2 = 0$

# PREVIEW

Gain complete access to the largest  
collection of worksheets in all subjects!

Members, please  
log in to  
download this  
worksheet.

Not a member?  
Please sign up to  
gain complete  
access.

[www.mathworksheets4kids.com](http://www.mathworksheets4kids.com)

## Solving Trigonometric Equations

Solve each equation on the interval  $0 \leq x \leq 2\pi$ .

1)  $\tan^2 x + \tan x(\sqrt{3} + 1) + \sqrt{3} = 0$

2)  $\cot^4 x = 4 \csc^2 x - 7$

$\frac{2\pi}{3}, \frac{3\pi}{4}, \frac{5\pi}{6}$

$\frac{\pi}{6}, \frac{7\pi}{6}, \frac{5\pi}{4}, \frac{7\pi}{4}, \frac{11\pi}{6}$

# PREVIEW

Gain complete access to the largest collection of worksheets in all subjects!

Members, please log in to download this worksheet.

Not a member? Please sign up to gain complete access.

[www.mathworksheets4kids.com](http://www.mathworksheets4kids.com)

3)  $\sec^2 x - \sec x = 6 \sin x$

$= 6 \sin x$

$\frac{\pi}{3}, \pi, \frac{5\pi}{3}$

$\frac{\pi}{2}$

5)  $\cos 2x = \cos x$

$\sqrt{2} \csc x + 2 = 0$

$0, \frac{2\pi}{3}, \frac{4\pi}{3}, 2\pi$

$\frac{5\pi}{4}, \frac{7\pi}{4}$