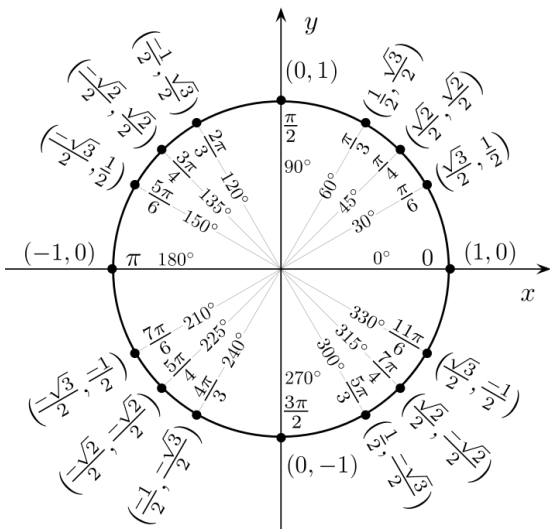


Practice Worksheet: Trigonometric Equations

Solve each equation over $[0, 2\pi]$ by combining like terms. All answers must be exact in terms of pi.



1] $\sin x + 2 = 3$

4] $\sqrt{3} \tan x + 1 = 0$

2] $4 \sec x + 8 = 0$

5] $\cot x - \sqrt{3} = 0$

3] $18 \cos x - 9\sqrt{3} = 0$

6] $8 \cos x - 4\sqrt{2} = 0$

Solve each equation over $[0, 2\pi]$ with the square root method. All answers must be exact in terms of pi.

7] $\sec^2 x - 1 = 0$

10] $4 \cos^2 x - 1 = 0$

8] $2 \cos^2 x = 1$

11] $4 \sin^2 x + 5 = 6$

9] $3 \tan^2 x - 9 = 0$

12] $3 \sec^2 x - 4 = 0$

Solve each equation over $[0, 2\pi]$ by factoring. All answers must be exact in terms of pi.

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

17] $\cot^2 x = -2 \cot x - 1$

14] $\sin^2 x \cos x = \cos x$

18] $\sin x - 2 \sin x \cos x = 0$

15] $2 \cos^2 x - \sqrt{3} \cos x = 0$

19] $\sec x \csc x = 2 \csc x$

16] $2 \sin^2 x + \sin x = 1$

20] $\tan x \csc x - 2 \tan x = 0$