

Solve the following equations over  $[0, 2\pi)$ .

1.  $4\sin x + 2 = 0$

2.  $2\cos x + \sqrt{3} = 0$

3.  $\csc x = 2$

4.  $4\sin^2 x - 1 = 0$

5.  $4\sec x - 8 = 0$

6.  $\cos x(\cos x - 1) = 0$

7.  $\cot x - \sqrt{3} = 0$

8.  $\sec^2 x - 2 = 0$

9.  $2\tan^2 x - 6 = 0$

10.  $3\cot^2 x - 1 = 0$

11.  $\cos x = \sin x$

12.  $4\sin^2 x + 9 = 12$