

If the problem says “F.A.S.” please find all solutions on the interval  $[0, 2\pi)$ . If it says “STE” please solve the equation.

1.  $4\cos^2 x = 5 - 4\sin x$  [FAS]

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

3.  $\sec^2 x - 2 = 0$  [STE]

4.  $4\cos x = 1 + 2\cos x$  [FAS]

5.  $\csc^2 x - 2 = 0$  [FAS]

6.  $\sqrt{3}\tan x - 1 = 0$  [FAS]

7.  $2\sin^2 x + \sin x - 1 = 0$  [FAS]

8.  $\sin^2 x - 2\cos x - 2 = 0$  [STE]

9.  $4\cos^2 x - 1 = 0$  [STE]

10.  $3\sin\theta + 5 = -2\sin\theta$  [FAS]

11.  $\sec^2 x - \sec x = 2$  [FAS]

12.  $3\sqrt{3}\tan x = 3$  [STE]

13.  $\sec x \csc x = 2\csc x$  [STE]

14.  $3\tan^3 x = \tan x$  [FAS]

15.  $2\cos^2 x + \sin x - 1 = 0$   
[FAS]

16.  $2\sin^2 x = \sin x + 3$  [FAS]

17.  $\cos x = -\frac{1}{2}$  [STE]