

Solve each equation for all possible primary solutions in the interval $0 \leq \theta < 2\pi$. You may use your unit circle, but not your graphing calculator.

1. $2 \sin \theta = -\sqrt{3}$

2. $2 \cos \theta - \sqrt{2} = 0$

3. $4 \sin^2 \theta = 1$

4. $3 \csc \theta - \sqrt{3} = \sqrt{3}$

5. $\sec \theta - 1 = 1$

6. $4 \cos \theta + 3\sqrt{3} = \sqrt{3}$

7. $3\sqrt{2} \sin \theta + 2 = -1$

8. $3 \sin \theta - \sin \theta = \sqrt{3}$

9. $5 \cot \theta + 3\sqrt{3} = -2\sqrt{3}$

10. $\tan(x + \frac{\pi}{4}) = 0$

11. $\cos(\theta - \frac{\pi}{3}) = \frac{1}{2}$

12. $\sin(2\theta) = \frac{\sqrt{2}}{2}$

13. $\sqrt{3} \sec(\theta - 10^\circ) = 2$

14. $\tan(2\theta) = \sqrt{3}$

15. $\tan(\frac{\theta}{2} + \frac{\pi}{4}) = \sqrt{3}$