

For the following exercises, find all solutions exactly on the interval $0 \leq \theta < 2\pi$.

4. $2\sin \theta = -\sqrt{2}$

5. $2\sin \theta = \sqrt{3}$

6. $2\cos \theta = 1$

7. $2\cos \theta = -\sqrt{2}$

8. $\tan \theta = -1$

9. $\tan x = 1$

10. $\cot x + 1 = 0$

11. $4\sin^2 x - 2 = 0$

12. $\csc^2 x - 4 = 0$

For the following exercises, solve exactly on $[0, 2\pi)$.

13. $2\cos \theta = \sqrt{2}$

14. $2\cos \theta = -1$

15. $2\sin \theta = -1$

16. $2\sin \theta = -\sqrt{3}$

17. $2\sin(3\theta) = 1$

18. $2\sin(2\theta) = \sqrt{3}$

19. $2\cos(3\theta) = -\sqrt{2}$

20. $\cos(2\theta) = -\frac{\sqrt{3}}{2}$

21. $2\sin(\pi\theta) = 1$

22. $2\cos\left(\frac{\pi}{5}\theta\right) = \sqrt{3}$

For the following exercises, find all exact solutions on $[0, 2\pi)$.

23. $\sec(x)\sin(x) - 2\sin(x) = 0$

24. $\tan(x) - 2\sin(x)\tan(x) = 0$