

Note: All equations should be solved under the domain $[0, 2\pi)$ Day 1 Homework – No Calculator – All answers in terms of π

1. $\sin x = \frac{1}{2}$

2. $\tan x = 1$

3. $\tan x = \frac{-\sqrt{3}}{3}$

4. $\cos x = \frac{-\sqrt{2}}{2}$

5. $\cos x = 0$

6. $\sin x = \frac{-\sqrt{2}}{2}$

7. $\sin 3x = -1$

8. $\tan 2x = \sqrt{3}$

9. $\cos 2x = \frac{-1}{2}$

10. $\tan 2x = -1$

11. $2\sin x + 1 = 0$

12. $\cos x - 1 = 0$

13. $\tan x + 1 = 0$

14. $\sqrt{3}\cot x - 1 = 0$

15. $4\sec x + 6 = -2$

16. $5\csc x - 3 = 2$

17. $3\sqrt{2}\cos x + 2 = -1$

18. $4\sin x + 3\sqrt{3} = \sqrt{3}$

Day 2 Homework – Calculator Required – All answers rounded to THREE DECIMAL PLACES.

19. $(1 + \cos x)\left(\frac{1}{\sin x} - 1\right) = 0$

20. $(\tan x - 1)(\sec x - 1) = 0$

21. $(\cot x + 1)(\csc x - 2) = 0$

22. $(\tan 2x - 1)(2\sin x + 1) = 0$

23. $2\sin^2 x \cos x = \cos x$

24. $2\cos^2 x + 5\cos x + 2 = 0$

25. $3\cos x + 2 = 2 - 2\cos^2 x$

26. $2\sin x \cos x = \cos x$

27. $1 + \sin x = 2 - 2\sin^2 x$

28. $\sin^2 x \sec^2 x - \sec^2 x = 0$

29. $\tan^2 x - \tan x = 0$

30. $\sin 2x \sec^2 x = 2\sin 2x$

31. $2\sin^3 2x - \sin 2x = 0$

32. $3\cos 2x + 1 = \cos 2x$

33. $2\cos^2 x - 1 = \cos x$

34. $4\cos^2 x + 4\cos x + 1 = 0$

35. $1 - 2\sin^2 x + 3\sin x = -1$

36. $\tan^2 x - 1 = 0$