

Algebra 2 S2 Name: \_\_\_\_\_ Block: \_\_\_\_\_

## Solving Trig Equations

**Solve the trig equations. Complete 10 questions and do the rest for practice. (Watch the video regarding Solving Trig Equations)**

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

$$11. \cos \theta (\tan \theta - \sqrt{3}) = 0$$

$$2. \quad 2 \sin \theta = \sqrt{2}$$

$$12. \quad 2 \sin \theta + \sqrt{3} = 0$$

$$3. \quad 2 \sin \theta - \sqrt{2} = 0$$

$$13. \sqrt{2} \sin \theta = 1$$

$$4. \quad 2 \cos \theta - \sqrt{2} = 0$$

$$14. \sin \theta - 2 \sin \theta \cos \theta = 0$$

$$5. \quad 2 \cos \theta + 1 = 0$$

$$15. \sin \theta = \cos \theta$$

$$6. \quad 2 \sin \theta - \sqrt{3} = 0$$

$$16. \quad 2 \cos \theta + 4 = 5$$

$$7. \quad 2 \sin \theta - 1 = 0$$

$$17. \quad 2 \sin \theta + 4 = 5$$

$$8. \quad 5 \tan \theta - 5 = 0$$

$$18. \quad 5 \cos \theta - \sqrt{3} = \cos \theta$$

$$9. \quad \cos \theta + 1 = 0$$

$$19. \quad 3 \tan \theta - \sqrt{3} = 0$$

$$10. \quad 2 \cos \theta - \sqrt{3} = 0$$

$$20. \quad \sqrt{3} \tan \theta - \sqrt{3} = 0$$

Algebra 2 S2 Name: \_\_\_\_\_ Block: \_\_\_\_\_

**Solve the trig equations. Complete 10 questions and do the rest for practice. (Watch the video regarding Solving Trig Equations using U-Substitution)**

$$21. 2\sin^2\theta - 1 = 0$$

$$30. 2\cos^2\theta - \cos\theta = 0$$

$$22. 3\tan^2\theta - 1 = 0$$

$$31. 4\sin^4\theta + 3\sin^2\theta - 1 = 0$$

$$23. 2\sin^2\theta - 3\sin\theta + 1 = 0$$

$$32. 4\cos^4\theta - 3 = 0$$

$$24. 2\sin\theta\cos\theta - \sin\theta = 0$$

$$33. \cos^3\theta = \cos\theta$$

$$25. \sin^2\theta + \sin\theta = 0$$

$$34. \tan^4\theta - 3 = 0$$

$$26. 2\cos^2\theta - \cos\theta - 1 = 0$$

$$35. 4\sin^2\theta - 2 = 0$$

$$27. 2\cos^4\theta - 3\cos^2\theta + 1 = 0$$

$$36. 16\cos^2\theta - 8 = 0$$

$$28. 2\sin^2\theta - 1 = 0$$

$$37. 2\cos^2\theta - 3\cos\theta + 1 = 0$$

$$29. \sin^2\theta = 0$$