

Review for Solving Trig Equations Quiz

Name: _____

Due: _____

Find the **GENERAL** solutions to the equations.

1. $\cos\theta = \frac{1}{2}$

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

3. $\tan\theta + 1 = 0$

4. $\tan\left(\theta - \frac{\pi}{2}\right) = 1$

Find the solutions on the interval $[0, 2\pi)$.

5. $2\sin^2\theta - 3\sin\theta + 1 = 0$

6. $2\cos^2\theta - 7\cos\theta - 4 = 0$

Find the solutions for x (**not the angle**) on the interval $[0, 2\pi)$.

7. $\cos(4x) + \sin(4x)\tan(4x) = 2$

8. $\cos(2x) = \sqrt{3}\sin(2x)$

Find the solutions for x (**not the angle**) on the interval $[0, 2\pi)$.

9. $9 \tan^2\left(\frac{\theta}{3}\right) = 3$

10. $3 \csc^2(2\theta) - 4 = 0$

Solve each equation on the interval $[0, 2\pi)$.

11. $\cos^3 x = 4\cos x$

12. $(\cot\theta + 1)\left(\csc\theta - \frac{1}{2}\right) = 0$

13. $\sin(2\theta) = \cos\theta$

14. $2\sin^2\theta = 3(1 - \cos\theta)$

15. $\cos(2\theta) = 2 - 2\sin^2\theta$

16. $\cos\theta + \sin\theta = 0$

17. $\cos^2\theta - \sin^2\theta + \sin\theta = 0$

18. $\sin 2\theta \sin\theta = \cos\theta$

USE A CALCULATOR to find the solution on the interval $[0, 2\pi)$.

19. $3\sin\theta + 2 = 0$

20. $5\cos\theta - 1 = 2$

