

Trigonometry Worksheet 7 - Answers

1. Solve $2 \sin \theta + 1 = 0$ for $\theta \in [0, 2\pi)$.

$\theta = 210^\circ$, and 330° .

6. Solve $\sin \theta = \sqrt{2} - \sin \theta$.

$\theta = 45^\circ, 135^\circ$.

2. Solve $2 \cos \theta = 1$ for $\theta \in [0, 2\pi)$.

$\theta = 60^\circ$, and 300° .

7. Solve $2 \cos^2 \theta - 1 = \cos \theta$ for $\theta \in [0, 2\pi)$.

$\theta = 30^\circ, 210^\circ$, and 180° .

3. Solve $2 \tan^2 \theta - 6 = 0$ for $\theta \in [0, 2\pi)$.

$\theta = 60^\circ, 120^\circ, 240^\circ$, and 300° .

8. Solve $2 \cos^2 \theta = \sin \theta + 1$ for $\theta \in [0, 2\pi)$.

$\theta = 60^\circ, 120^\circ$, and 270° .

4. Solve $2 \cos \theta = \sqrt{3}$ for $\theta \in [0, 2\pi)$.

$\theta = 30^\circ, 330^\circ$.

9. Solve $2 \cos(2\theta) = 0$ for $\theta \in [0, 2\pi)$.

$\theta = 45^\circ, 135^\circ, 225^\circ$, and 315° .

5. Solve $\tan \theta + 2 = 1$.

$\theta = 135^\circ, 315^\circ$.

10. Solve $\sin(2\theta) = \frac{3}{2}$ for $\theta \in [0, 2\pi)$.

$\theta = 30^\circ, 60^\circ, 210^\circ$, and 240° .