

## Identify Solutions to Trigonometric Equations, When Given Domain Restrictions

Solve each equation for  $0 \leq \theta < 2\pi$ .

1)  $\sin \theta = -\frac{\sqrt{2}}{2}$

2)  $\cos \theta = -\frac{1}{2}$

3)  $\tan \theta = \frac{\sqrt{3}}{3}$

4)  $\sin \theta = \frac{\sqrt{2}}{2}$

5)  $\frac{\sqrt{3}}{2} = \cos \theta$

6)  $\cos \theta = \sqrt{3}$

7)  $\tan \theta = 1$

8)  $\cos \theta = 0$

9)  $\tan \theta = -1$

10)  $2 = \cos \theta$

11)  $0 = \sin \theta$

12)  $4\sqrt{3} = -4\tan \theta$

13)  $3 = -3\tan \theta$

14)  $\frac{\sqrt{2}}{2} = \sin \theta$

$$15) 1 + \sin \theta = \frac{2 - \sqrt{3}}{2}$$

$$16) \frac{9}{2} = 4 + \cos \theta$$

$$17) \frac{6 + \sqrt{3}}{2} = 3 + \cos \theta$$

$$18) 8\cos \theta = -4\sqrt{3}$$

$$19) -6\sin \theta = -3$$

$$20) -2 + \tan \theta = -3$$

$$21) 1 + 4\tan \theta = -3$$

$$22) -4 + 4\tan \theta = 0$$

$$23) 2 + \frac{1}{2} \cdot \sin \theta = \frac{8 - \sqrt{3}}{4}$$

$$24) 4 = 3 + 2\cos \theta$$

$$25) 4 - 8\sin \theta = 8$$

$$26) \frac{-6 - \sqrt{3}}{3} = -2 + \frac{1}{3} \cdot \tan \theta$$

$$27) 3 - \frac{1}{5} \cdot \cos \theta = \frac{14}{5}$$

$$28) 1 - 6\cos \theta = -2$$

$$29) \frac{15 - \sqrt{3}}{5} = 3 - \frac{2}{5} \cdot \cos \theta$$

$$30) 5 - 4\sin \theta = 7$$