

Solving Simple Trigonometric Equations

Date _____ Period _____

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

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

2) $\sin \theta = \frac{\sqrt{3}}{2}$

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

4) $\cos \theta = -\frac{\sqrt{2}}{2}$

5) $1 = \tan \theta$

6) $\sin \theta = -1$

7) $-2 - 3\sin \theta = 1$

8) $5 + 2\cos \theta = 7$

9) $\sin\left(\theta + \frac{4\pi}{3}\right) = 0$

10) $\sin 3\theta = \frac{\sqrt{2}}{2}$

$$11) \cos 2\theta = \frac{1}{2}$$

$$12) \frac{\sqrt{2}}{2} = \cos\left(\theta + \frac{\pi}{3}\right)$$

$$13) \tan 2\theta = \frac{\sqrt{3}}{3}$$

$$14) \sin x \cos x + \cos x = 0$$

$$15) 4\cos^2 x = 3$$

$$16) 2\sin^2 x + 5\sin x - 3 = 0$$