

Unit 8 - HW: Trig Equations with Multiple Angles

Date _____ Period _____

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

1) $\csc 2\theta = \sqrt{2}$

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

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

4) $\cos 3\theta = 1$

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

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

7) $6\cot 2\theta = 2\sqrt{3}$

8) $6 = 3\sec \frac{\theta}{2}$

$$9) -4 + 4\sin \frac{\theta}{4} = 0$$

$$10) -5 = -3 - 4\cos 2\theta$$

$$11) 0 = -1 - 2\cos 2\theta$$

$$12) 1 + 3\sin 4\theta = 1$$

$$13) \frac{\sqrt{2}}{2} = \cos \frac{\theta}{4}$$

$$14) -2 + \tan 2\theta = -2$$

$$15) -2 = 2 + 8\sin 3\theta$$

$$16) \frac{1}{5} \cdot \cos 4\theta = -\frac{1}{5}$$