

Assignment 3.1 - Solving Basic Trig Equations

Date _____ Period _____

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

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

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

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

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

5) $4\sqrt{3} = 12\tan \theta$

6) $6\cos \theta = 3$

7) $-2\cos \theta = 1$

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

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

10) $-1 = -3 + 2\sec \theta$

11) $5 = 5 + \cos \theta$

12) $-1 = -2 - \cot \theta$

13) $-2 - 2\cos \theta = -4$

14) $\frac{20 - \sqrt{3}}{5} = 4 + \frac{2}{5} \cdot \sin \theta$

15) $2 - \tan \theta = -1 + 2\tan \theta$

16) $-2\csc \theta = 1 - 3\csc \theta$

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

18) $1 + \cot \theta = 3 + 3\cot \theta$

19) $3 - \frac{15}{4} \cdot \tan \theta = \frac{12 - \sqrt{3}}{4} - 3\tan \theta$

20) $4\cos^2 \theta - 1 = 0$