

Solving Simple Equations and Graphing Review

Date _____ Period _____

Find the exact value of each trigonometric function.

1) $\tan \frac{4\pi}{3}$

2) $\tan \frac{\pi}{6}$

3) $\tan \frac{\pi}{2}$

4) $\cos \frac{2\pi}{3}$

5) $\cos \frac{3\pi}{2}$

6) $\sin 0$

7) $\sec \frac{7\pi}{4}$

8) $\cot \frac{11\pi}{6}$

9) $\cot \frac{5\pi}{3}$

10) $\cot 0$

11) $\sec \frac{4\pi}{3}$

12) $\csc 0$

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

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

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

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

16) $-1 = \tan \theta$

17) $-1 + 6\cos \theta = -4$

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

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

20) $\cos\left(\theta + \frac{7\pi}{6}\right) = 1$

Graph each function using radians.

21) $y = \sin \theta$

22) $y = \cos \theta$

23) $y = \csc \theta$

24) $y = \sec \theta$

25) $y = \tan \theta$

26) $y = \cot \theta$

27) $y = 4\sin \theta$

28) $y = \cos\left(\theta + \frac{5\pi}{6}\right)$

29) $y = \sin\left(\theta - \frac{5\pi}{4}\right)$

30) $y = -2 + \cos \theta$

31) $y = \sin 2\theta$

32) $y = \cos 3\theta$

33) $y = \sin\left(\frac{\theta}{3} - \frac{\pi}{4}\right)$

34) $y = \sin\left(2\theta + \frac{\pi}{2}\right)$