

Graphing Review

Date _____ Period _____

Using radians, find the amplitude and period of each sine function. Then graph.

1) $y = 3\sin 3\theta$

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

3) $y = 2\sin \left(2 \left(x - \frac{3\pi}{4} \right) \right)$

Using radians, find the amplitude and period of each cosine function. Then graph.

4) $y = 2 + \cos \theta$

5) $y = \cos \left(\theta + \frac{\pi}{3} \right)$

6) $y = \cos \left(\frac{1}{2} \left(x + \frac{5\pi}{6} \right) \right)$

Using radians, find the period of each tangent function. Then graph. Don't forget the vertical asymptotes.

7) $y = \tan \frac{\theta}{2}$

8) $y = 2\tan 2\theta$

9) $y = \tan \left(2x - \frac{\pi}{2} \right)$

Don't forget to factor!

Using radians, find the period of each cotangent function. Then graph. Don't forget the vertical asymptotes.

10) $y = 2\cot \frac{\theta}{2}$

11) $y = 4\cot \left(\theta + \frac{3\pi}{4} \right)$

12) $y = \cot \left(\frac{1}{2}x - \frac{\pi}{8} \right)$

Don't forget to factor!

Using radians, find the period of each cosecant and secant function. Then graph. Don't forget the vertical asymptotes.

13) $y = \csc 2\theta$

14) $y = 3\sec \left(\theta + \frac{\pi}{4} \right)$

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

15) $-5 = -3 + 4\sin \theta$

16) $2 = 3 + 2\cos \theta$

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

18) $-\frac{\sqrt{3}}{2} = \cos (\theta + \pi)$

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

20) $-1 = \cos 4\theta$

21) $\tan \left(\theta + \frac{\pi}{4} \right) = \sqrt{3}$

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

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

24) $2\sin x + \sin x - 1 = 0$