Chapter 4 Part II Practice Graphing

Name_____ Period_____

Determine the amplitude, phase shift, period, and vertical shift and then graph one period of the function. Label the x and y axis for each graph.

1. $y = \cos\left(2\theta + \frac{\pi}{2}\right) - 1$

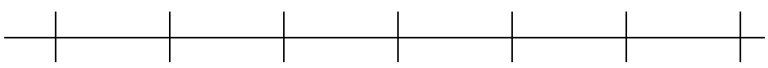
A: PS:

P: VS:

2. $y = -2\sin\left(\frac{1}{2}\theta - \frac{\pi}{2}\right) + 1$

A: PS:

P: VS:



3. $y = \tan(2\theta - \frac{\pi}{4}) + 1$

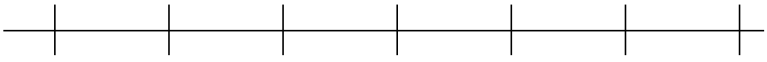
A: Asymptotes:

P: VS:

4. $y = \cot(2\theta + \frac{\pi}{4}) - 3$

A: Asymptotes:

P: VS:



5. $y = 3\csc 2\theta + 2$

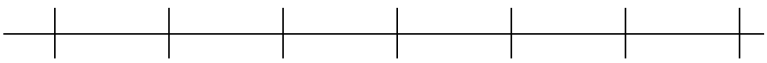
A: PS:

P: VS:

6. $y = 2\sec\left(\frac{\theta}{3} + \pi\right) - 1$

A: PS:

P: VS:



Find the exact value:

7. Arccos(0)

8. $Sin^{-1}\frac{\sqrt{3}}{2}$

9. $\cos(Cos^{-1}(-\frac{\sqrt{3}}{2}))$

10. $Cos^{-1}(\cos\frac{\pi}{4})$

11. $\cot(sin^{-1}\frac{\sqrt{3}}{2})$

12. $Sin^{-1}\left(-\frac{\sqrt{2}}{2}\right)$.

13. $\tan\left(Sin^{-1}\left(\frac{1}{2}\right)\right)$.

14. Write an equation of the cosine function with amplitude 3 and period 4π.

15. Write an equation of the sine function with the given amplitude, period, phase shift, and vertical shift: amplitude = 3, period = $\frac{2}{3}\pi$, phase shift = $-\frac{1}{6}\pi$, vertical shift = 4.

16. Write an equation for secant function given amplitude = 6, period = $\frac{3}{4}\pi$, phase shift = 2π, vertical shift = -3.