Acc PreCal
Graphing Trig Functions Test R

Name_____
Date _____ Period _____

Label all the properties of the tri... nd then graph it.

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

Amplitude: 2

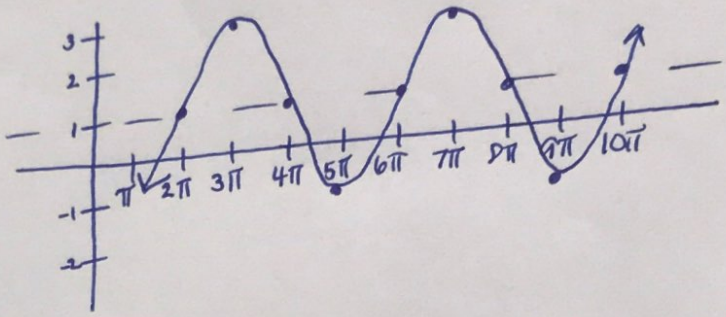
Period: 4π

Intervals: π

Phase Shift: 2π

Vertical Shift: 1

Graph:



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

Note: Reflection

Amplitude: $\frac{1}{2}$

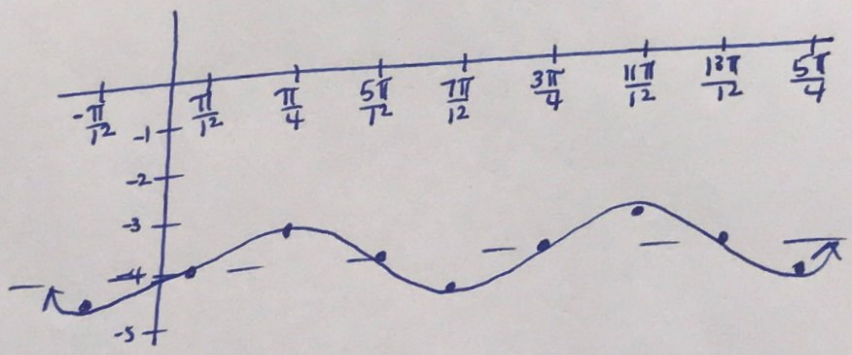
Period: $\frac{2\pi}{3}$

Intervals: $\frac{\pi}{6}$

Phase Shift: $\frac{-\pi}{12}$

Vertical Shift: -4

Graph:



3. $y = \tan\frac{\theta}{2} + 2$

Amplitude: 1

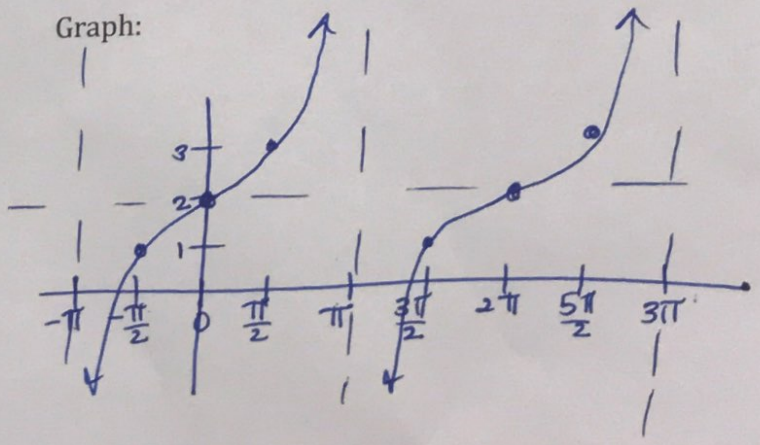
Period: 2π

Intervals: $\frac{\pi}{2}$

Phase Shift: 0

Vertical Shift: 2

Graph:



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4. $y = \csc\left(\frac{\theta}{4} + \frac{\pi}{2}\right)$

Amplitude: 1

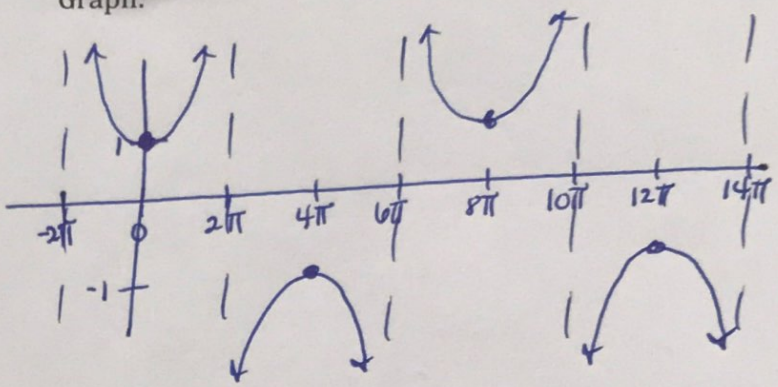
Period: 8π

Intervals: 2π

Phase Shift: -2π

Vertical Shift: 0

Graph:



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

Amplitude: 3

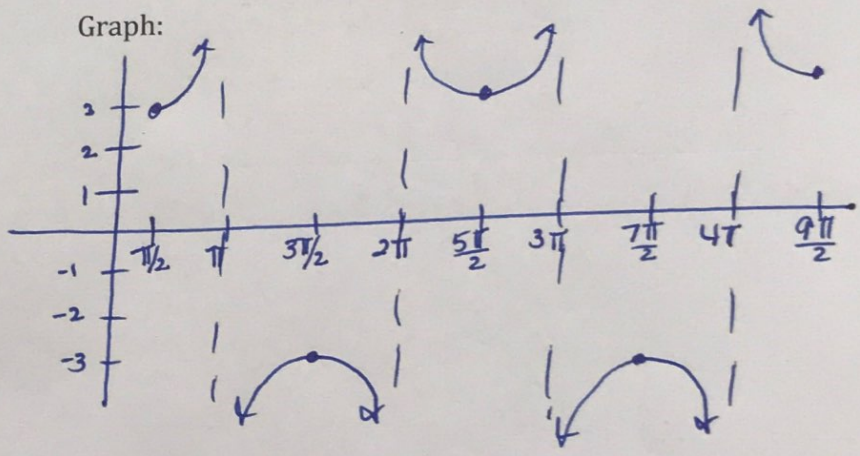
Period: 2π

Intervals: $\frac{\pi}{2}$

Phase Shift: $\frac{\pi}{2}$

Vertical Shift: 0

Graph:



6. $y = \cot 2\theta + 5$

Amplitude: 1

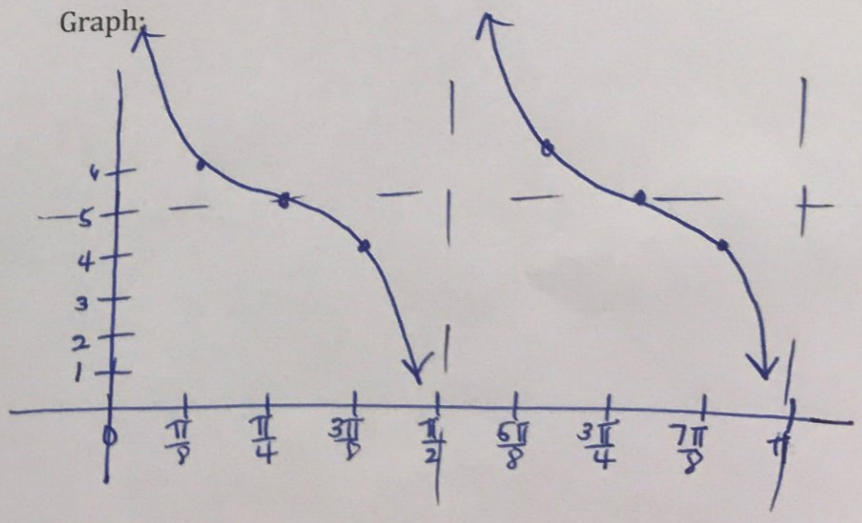
Period: $\frac{\pi}{2}$

Intervals: $\frac{\pi}{8}$

Phase Shift: 0

Vertical Shift: 5

Graph:



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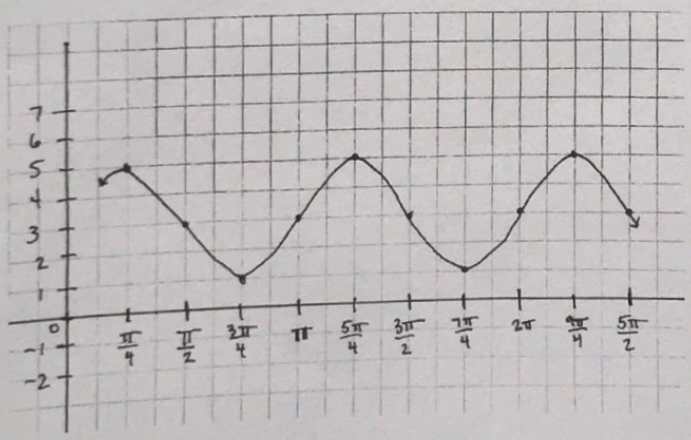
7. Write an equation for the foll[illegible]cant function with a period of 4π, a reflection, amplitude of 3, phase s[illegible], and a vertical shift of down 5.

$$y = -3\csc\left(\frac{\theta}{2} - \frac{\pi}{2}\right) - 5$$

8. Write an equation for the following: a tangent function with a period of $\frac{\pi}{2}$, a phase shift of $-\pi$, and a vertical shift 2.

$$y = \tan(2\theta + 2\pi) + 2$$

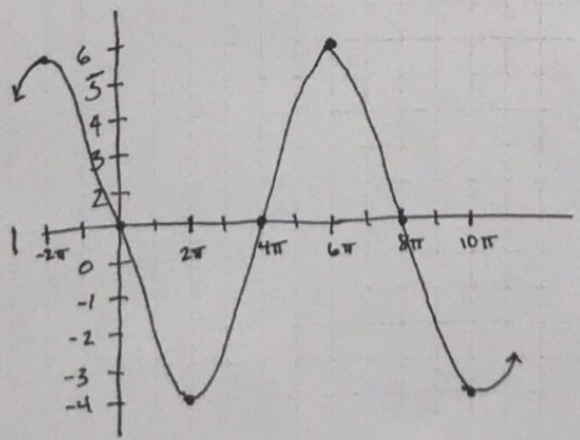
9. Write the equation for the following cosine graph.



Equation:

$$y = 2\cos\left(2\theta - \frac{\pi}{2}\right) + 3$$

10. Write the equation for the following sine graph.



Equation:

$$y = 5\sin\left(\frac{\theta}{4} - \pi\right) + 1$$

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Find 2 vertical asymptotes for th g functions:

11) $y = \sec\left(\theta - \frac{2\pi}{3}\right) + 4$

$X = \frac{7\pi}{6}$

$X = \frac{13\pi}{6}$

12) $y = \csc\left(\frac{\theta}{4} - \frac{\pi}{6}\right) + 3$

$X = \frac{2\pi}{3}$

$X = \frac{14\pi}{3}$

13) $y = -5 + 7tan\left(7\theta - \frac{\pi}{2}\right)$

$X = 0$

$X = \frac{\pi}{7}$

14) $y = -3 + 4\cot\left(6\theta + \frac{3\pi}{4}\right)$

$X = -\frac{\pi}{8}$

$X = \frac{\pi}{24}$