

PART 1: State the amplitude, period, phase shift, and vertical shift for each function.

1.) $y = 110 \sin(20\theta) + 3$

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2.) $y = 2 \sin(\theta)$

RADIANS

Amplitude: _____

Amplitude: _____

Period: _____

Period: _____

Phase Shift: _____

Phase Shift: _____

Vertical Shift: _____

Vertical Shift: _____

3.) $y = 10 \sin\left(\frac{1}{3}\theta - 300\right)$

4.) $y = 4 \sin\left(\frac{1}{2}\theta - \frac{\pi}{2}\right) - 9$

5.) $y = -7 \sin(6\theta) - \frac{\pi}{6}$

Amplitude: _____

Amplitude: _____

Amplitude: _____

Period: _____

Period: _____

Period: _____

Phase Shift: _____

Phase Shift: _____

Phase Shift: _____

Vertical Shift: _____

Vertical Shift: _____

Vertical Shift: _____

DEGREES**RADIANS****RADIANS****PART TWO:** Write an equation of the sine function with each amplitude, period and phase shift.1.) Amplitude: 5 Period: 360° Phase Shift: Right 60° Vertical Shift: Down 42.) Amplitude: 2 Period: π Phase Shift: Right $\frac{\pi}{4}$ Vertical Shift: Up 13.) Amplitude: 17 Period: 45° Phase Shift: Left 60° Vertical Shift: Down 24.) Amplitude: $\frac{1}{2}$ Period: $\frac{3\pi}{2}$ Phase Shift: Left $\frac{\pi}{4}$ Vertical Shift: Up 35.) Amplitude: 7 Period: 225° Phase Shift: Left 90° Vertical Shift: Up 5

PART 3: Graph one period of each sine function. Identify the Amplitude, Period, Phase shift, and Vertical Shift for each

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

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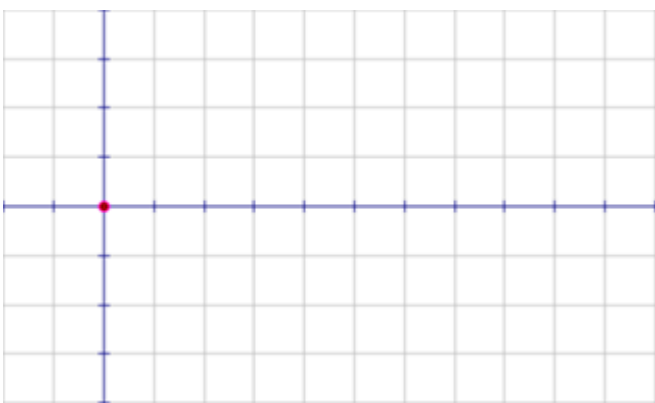
A: _____ PER: _____ P.S.: _____ V.S.: _____

2.) $y = 4 \sin\left(\frac{1}{2}\theta\right)$

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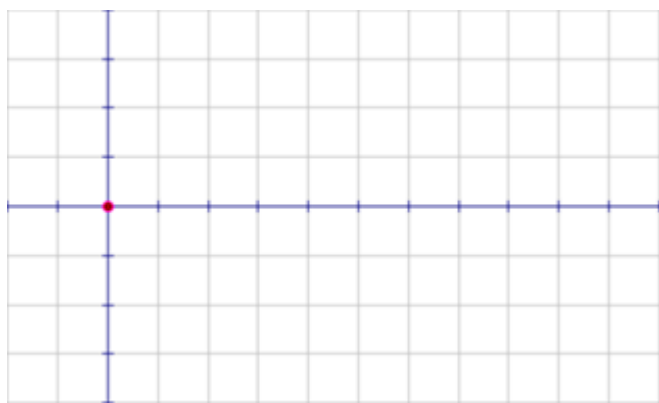
A: _____ PER: _____ P.S.: _____ V.S.: _____

3.) $\sin(\theta - 45)$

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A: _____ PER: _____ P.S.: _____ V.S.: _____

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

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A: _____ PER: _____ P.S.: _____ V.S.: _____

5.) $y = \sin(\theta + \pi) + 3$

RADIANS

A: _____ PER: _____ P.S.: _____ V.S.: _____

6.) $y = \sin(2\theta - \pi) - 2$

RADIANS

A: _____ PER: _____ P.S.: _____ V.S.: _____