

Graphing Sinusoidals

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

1) $y = -2 + 2\sin \theta$

2) $y = \frac{1}{2} \cdot \cos \theta + 2$

3) $y = 4\sin 2\theta + 2$

4) $y = 2\cos 3\theta + 2$

5) $y = \frac{1}{2} \cdot \sin \frac{\theta}{4} + 2$

6) $y = 3\sin 4\theta - 1$

7) $y = 2\sin \left(\theta - \frac{5\pi}{3} \right) + 1$

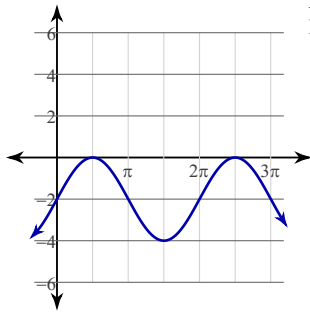
8) $y = 2 + 4\cos \left(\frac{\theta}{3} + \frac{\pi}{6} \right)$

9) $y = 1 + \frac{1}{2} \cdot \sin \left(\frac{\theta}{4} - \frac{3\pi}{2} \right)$

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

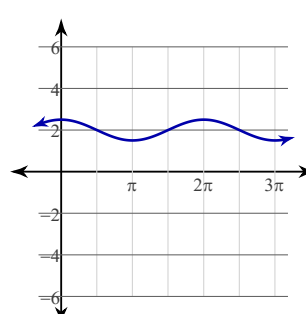
Answers to Graphing Sinusoidals

1)



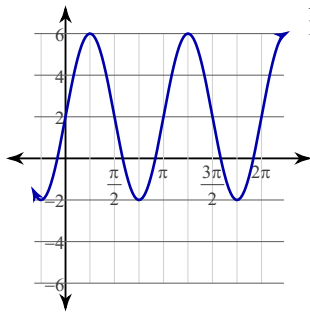
Amplitude: 2
Period: 2π

2)



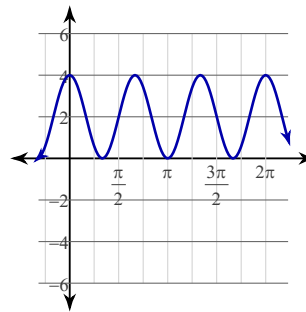
Amplitude: $\frac{1}{2}$
Period: 2π

3)



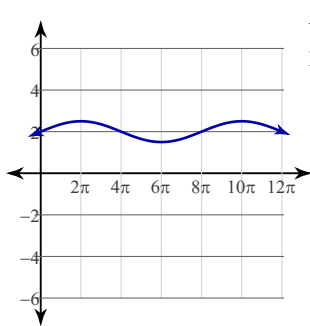
Amplitude: 4
Period: π

4)



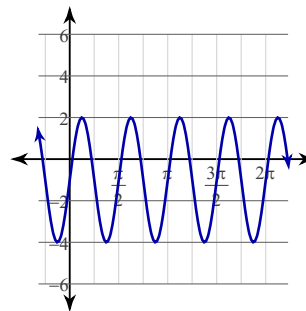
Amplitude: 2
Period: $\frac{2\pi}{3}$

5)



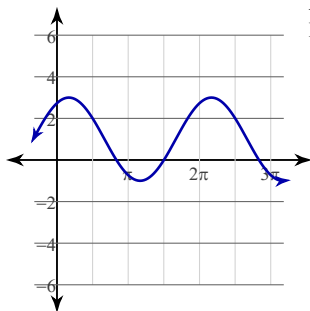
Amplitude: $\frac{1}{2}$
Period: 8π

6)



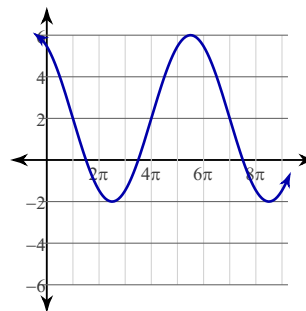
Amplitude: 3
Period: $\frac{\pi}{2}$

7)



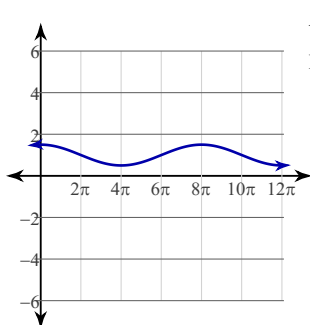
Amplitude: 2
Period: 2π

8)



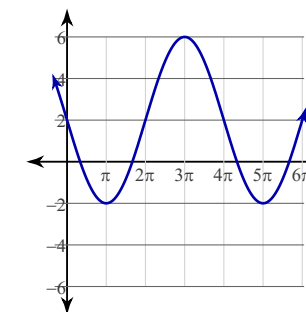
Amplitude: 4
Period: 6π

9)



Amplitude: $\frac{1}{2}$
Period: 8π

10)



Amplitude: 4
Period: 4π