

Graphing Trig Functions 1

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

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

2) $y = 3\sin 2\theta - 2$

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

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

5) $y = \frac{1}{2} \cdot \sec\left(\theta + \frac{\pi}{2}\right) - 1$

6) $y = -2 + 3\sec\left(\frac{\theta}{2} + \frac{5\pi}{6}\right)$

7) $y = 2 + 2\csc \frac{\theta}{3}$

8) $y = 2\csc\left(\frac{\theta}{3} + \frac{\pi}{2}\right) + 1$

9) $y = 3\tan 2\theta$

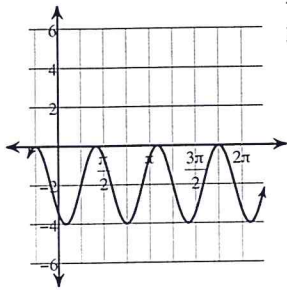
10) $y = -2 + \tan\left(\theta + \frac{\pi}{6}\right)$

11) $y = 1 + 2\cot \frac{\theta}{3}$

12) $y = 4\cot\left(\frac{\theta}{2} + \frac{\pi}{2}\right) + 1$

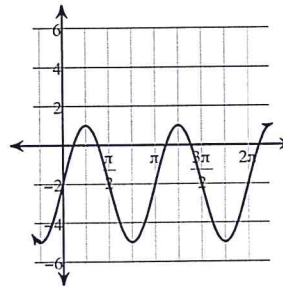
Answers to Graphing Trig Functions ¹

1)



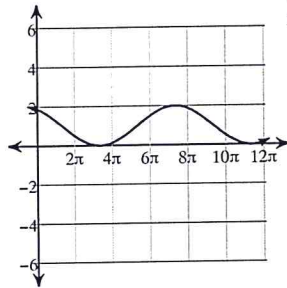
Amplitude: 2
Period: $\frac{2\pi}{3}$

2)



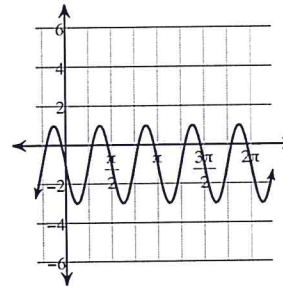
Amplitude: 3
Period: π

3)



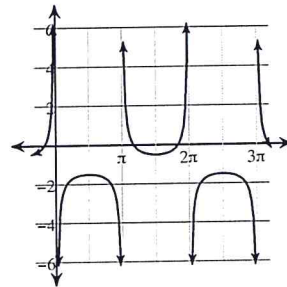
Amplitude: 1
Period: 8π

4)



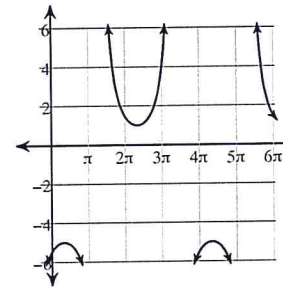
Amplitude: 2
Period: $\frac{\pi}{2}$

5)



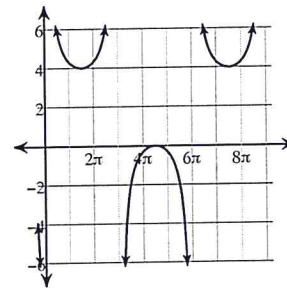
Amplitude: None
Period: 2π

6)



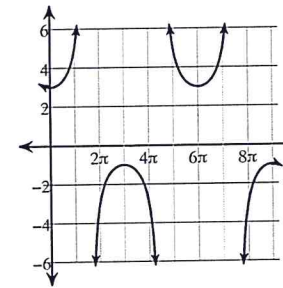
Amplitude: None
Period: 4π

7)



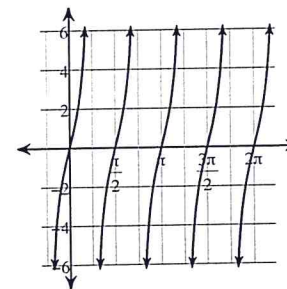
Amplitude: None
Period: 6π

8)



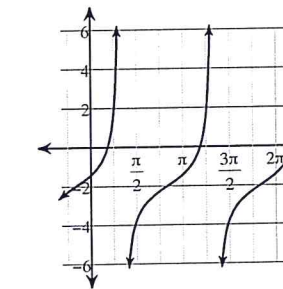
Amplitude: None
Period: 6π

9)



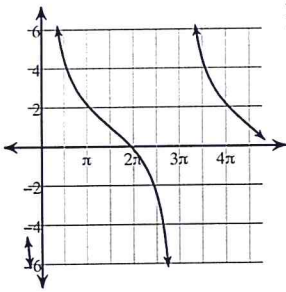
Amplitude: None
Period: $\frac{\pi}{2}$

10)



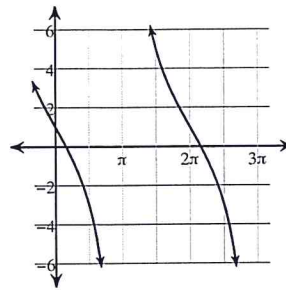
Amplitude: None
Period: π

11)



Amplitude: None
Period: 3π

12)



Amplitude: None
Period: 2π