College Math Name_____

Final Review - Trigonometric Functions

Date_____

Using DEGREES, find the amplitude and period of each function.

1) $y = 5\sin 5\theta$

Amplitude:

Period:

2) $y = 7\cos 6\theta$

Amplitude:

Period:

3) $y = \frac{1}{5} \cdot \cos 8\theta$

Amplitude:

Period:

4) $y = \frac{1}{2} \cdot \cos \frac{\theta}{6}$

Amplitude:

Period:

5) $y = 9\cos \frac{\theta}{8}$

Amplitude:

Period:

6) $y = \frac{1}{9} \cdot \sin 5\theta$

Amplitude:

Period:

Using RADIANS, find the amplitude and period of each function.

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

Amplitude:

Period:

8) $y = 10\sin 6\theta$

Amplitude:

Period:

9) $y = \frac{1}{6} \cdot \sin 2\theta$

Amplitude:

Period:

10) $y = \frac{1}{7} \cdot \sin 8\theta$

Amplitude:

Period:

11) $y = \frac{1}{6} \cdot \sin 6\theta$

Amplitude:

Period:

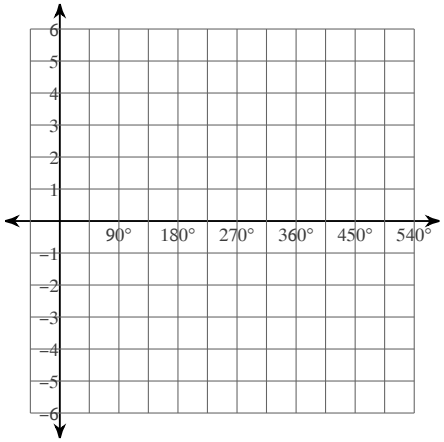
12) $y = \frac{1}{10} \cdot \cos 2\theta$

Amplitude:

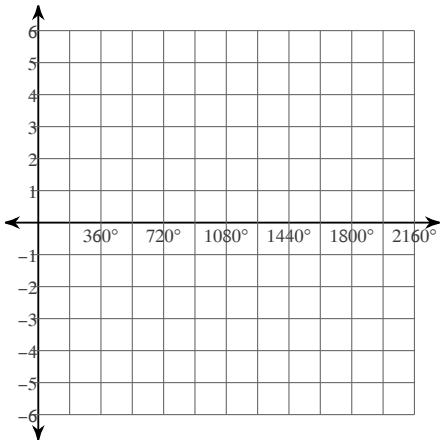
Period:

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

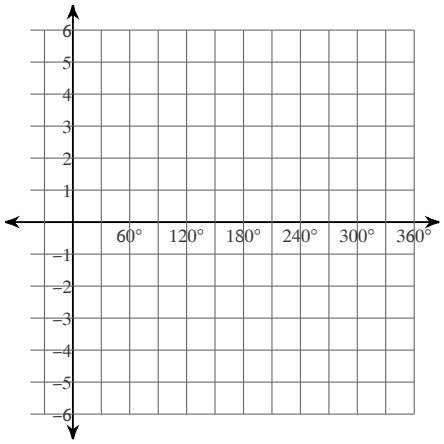
13) $y = 2\cos\theta$



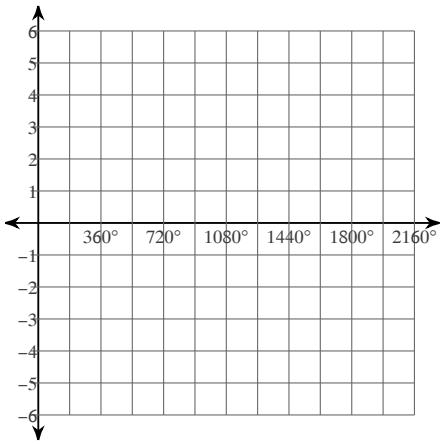
14) $y = 3\cos\frac{\theta}{4}$



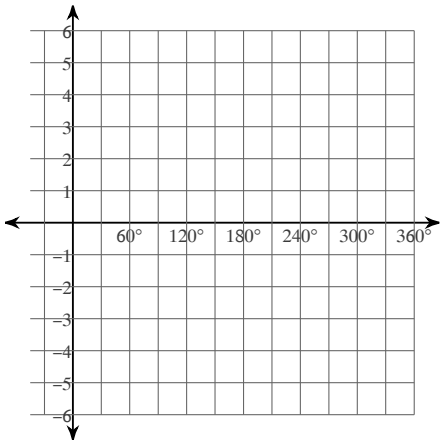
15) $y = \frac{1}{2} \cdot \sin 4\theta$



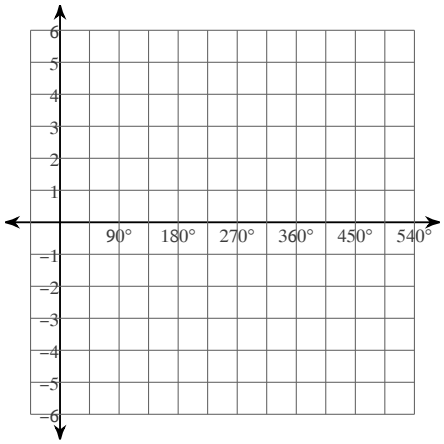
16) $y = 2\sin\frac{\theta}{4}$



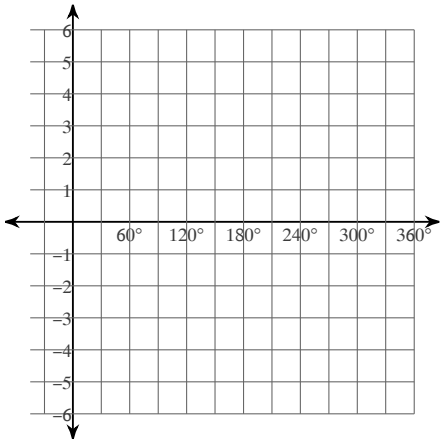
17) $y = 2\tan 2\theta$



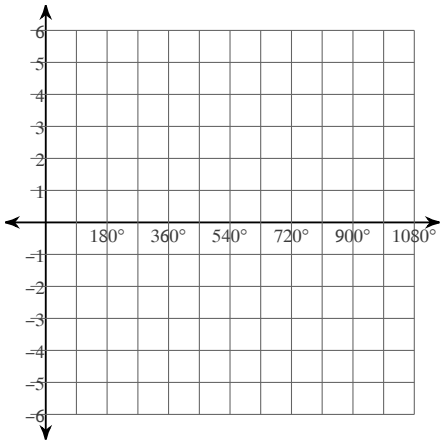
18) $y = 2\tan\frac{\theta}{2}$



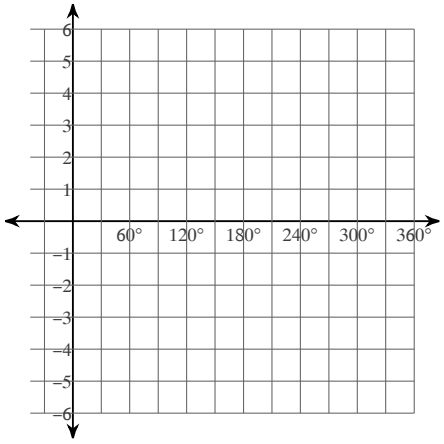
19) $y = 2\cos(2\theta + 120)$



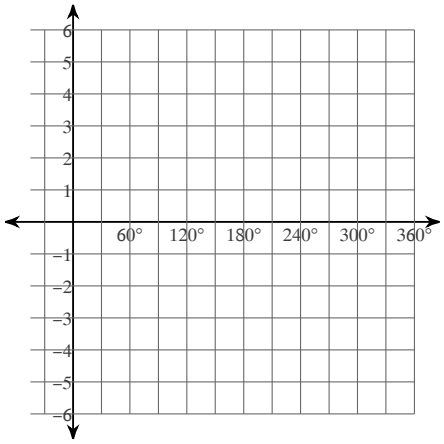
20) $y = 4\cos\left(\frac{\theta}{2} - 30\right)$



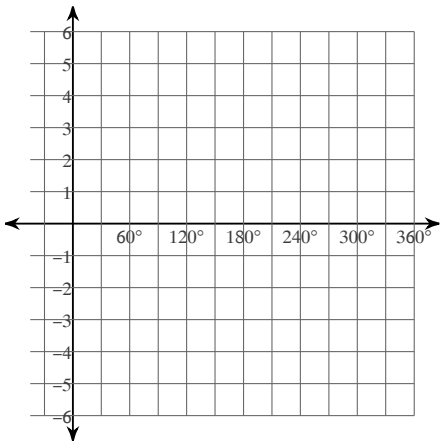
21) $y = 4\cos 4\theta - 1$



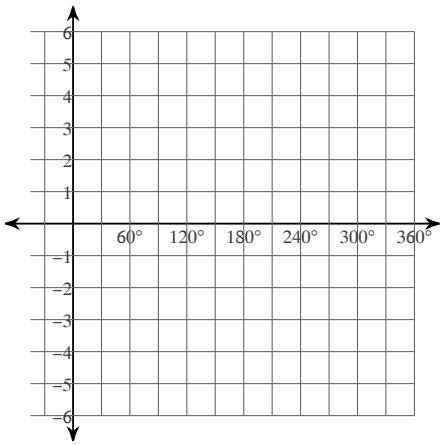
22) $y = \frac{1}{2} \cdot \cos 4\theta + 2$



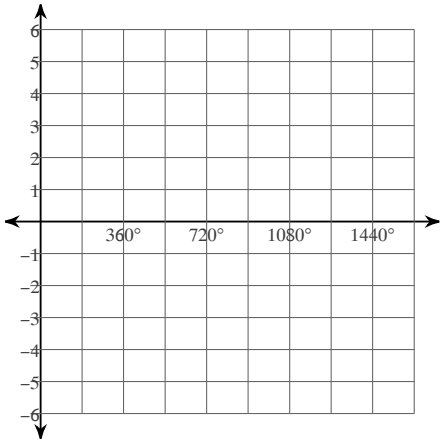
23) $y = \sin(3\theta + 135)$



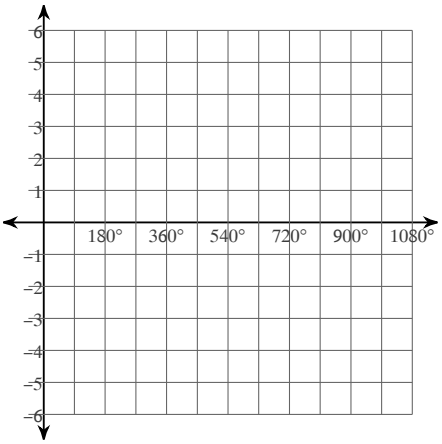
24) $y = \sin(3\theta - 300)$



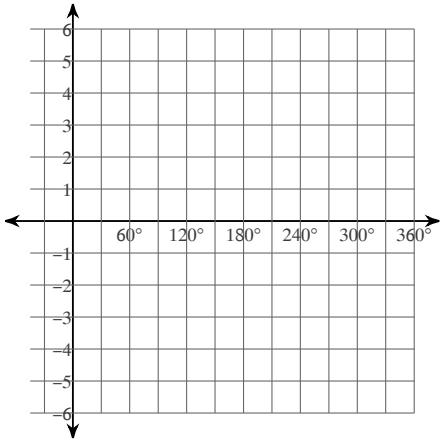
25) $y = \frac{1}{2} \cdot \sin \frac{\theta}{3} - 1$



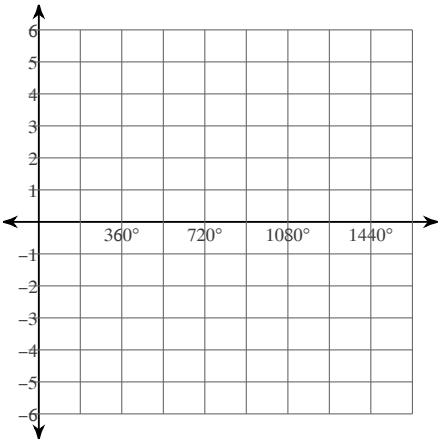
26) $y = 4\sin \frac{\theta}{2} + 2$



27) $y = 1 + \frac{1}{2} \cdot \cos(2\theta - 120)$

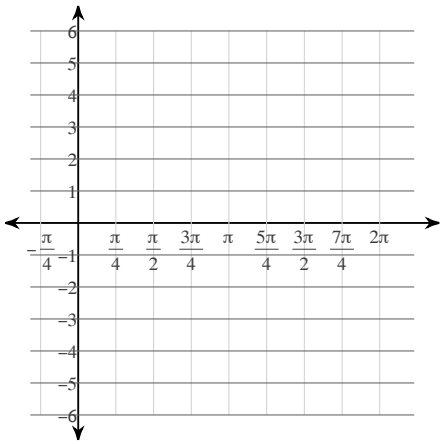


28) $y = \sin\left(\frac{\theta}{3} + 150\right) - 2$

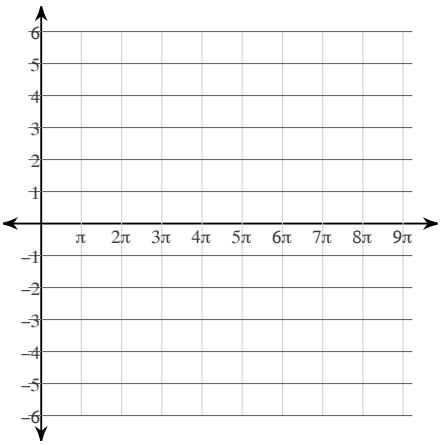


Using radians, find the amplitude and period of each function. Then graph.

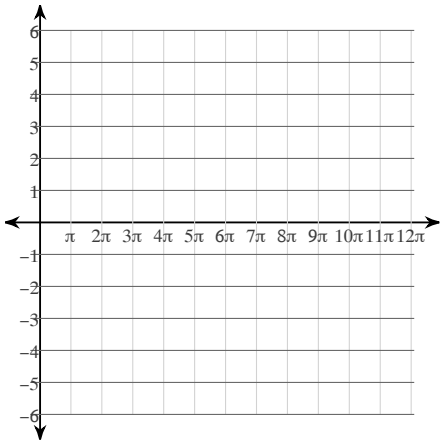
29) $y = 2\cos 2\theta$



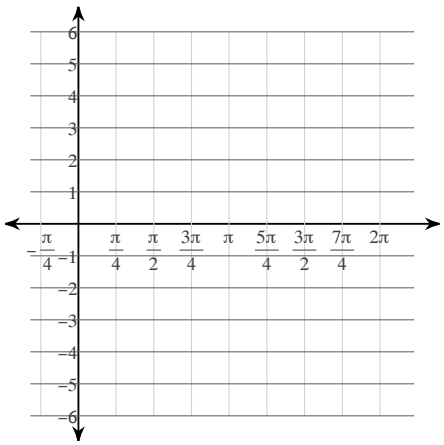
30) $y = 3\cos \frac{\theta}{3}$



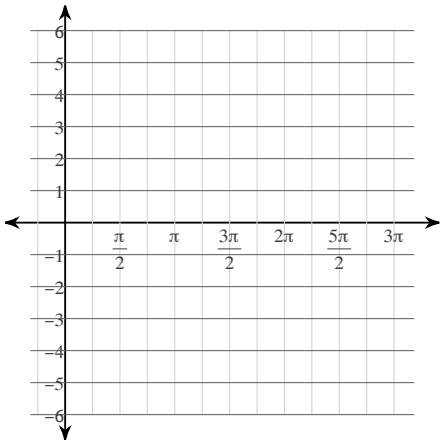
31) $y = 3\sin\dfrac{\theta}{4}$



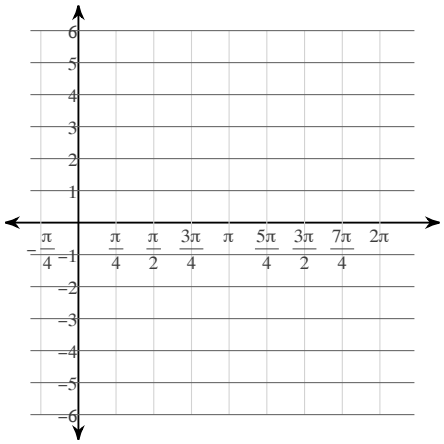
32) $y = \sin 3\theta$



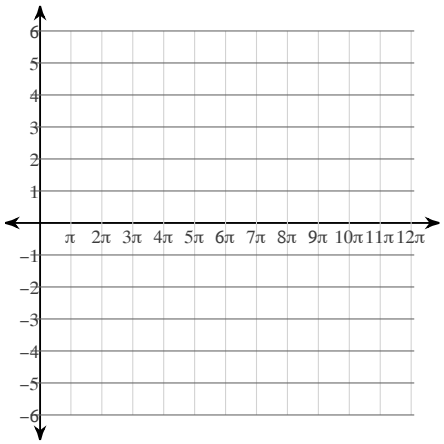
33) $y = 4\tan\dfrac{\theta}{2}$



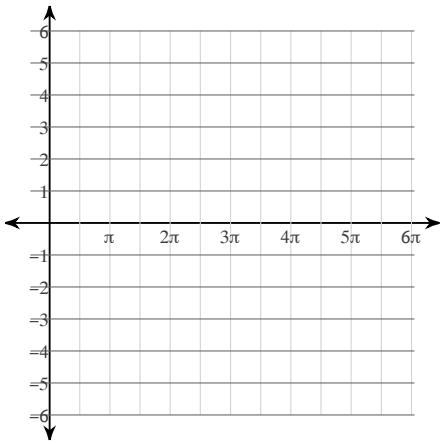
34) $y = \dfrac{1}{2}\cdot\tan 2\theta$



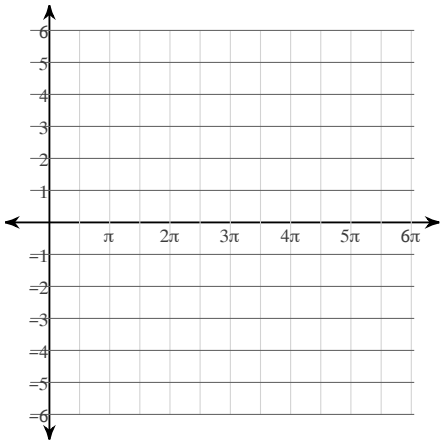
35) $y = 4\cos\left(\dfrac{\theta}{4} + \dfrac{3\pi}{4}\right)$



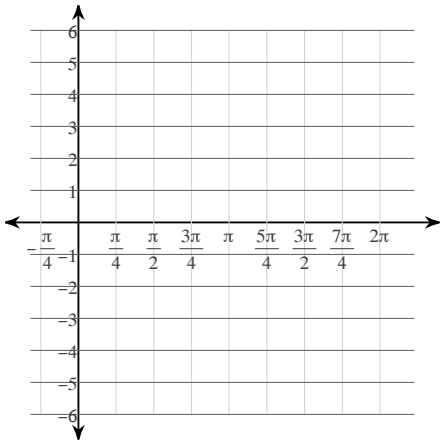
36) $y = \cos\left(\dfrac{\theta}{2} - \dfrac{2\pi}{3}\right)$



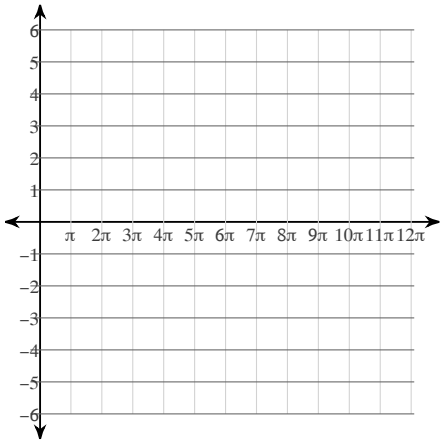
37) $y = 3\cos\left(\frac{\theta}{2} + \frac{\pi}{6}\right)$



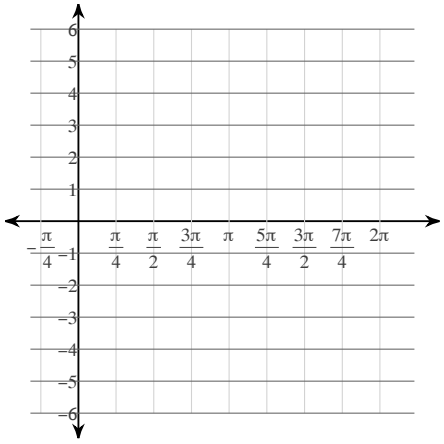
38) $y = 2\cos\left(3\theta - \frac{\pi}{2}\right)$



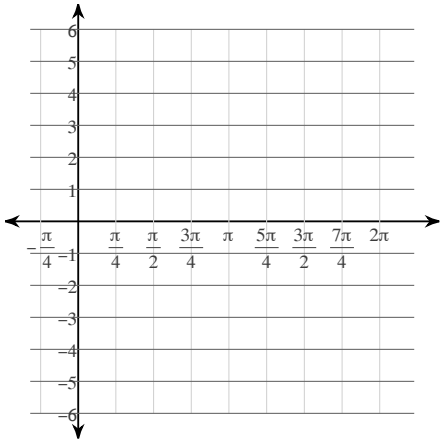
39) $y = 2 + \frac{1}{2} \cdot \cos\frac{\theta}{4}$



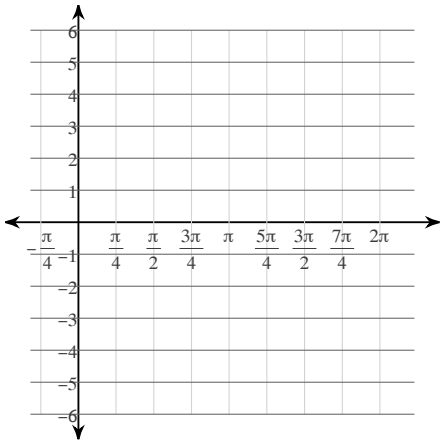
40) $y = 2\cos 3\theta + 2$



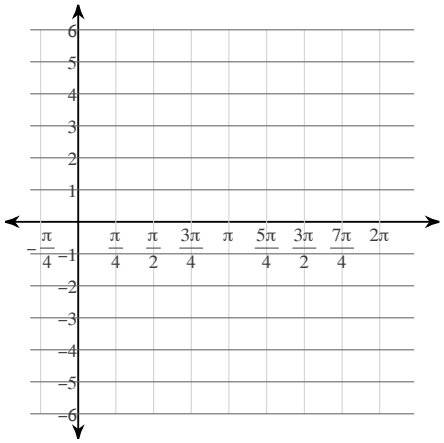
41) $y = \frac{1}{2} \cdot \sin\left(2\theta + \frac{3\pi}{4}\right)$



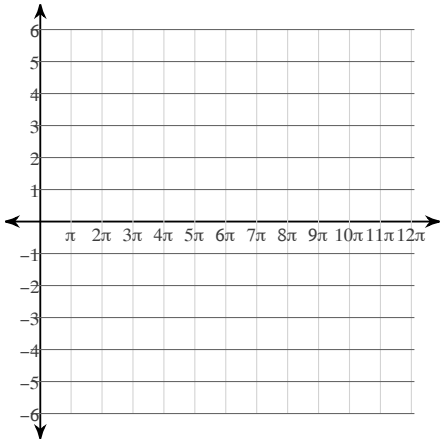
42) $y = 2\sin\left(4\theta + \frac{5\pi}{6}\right)$



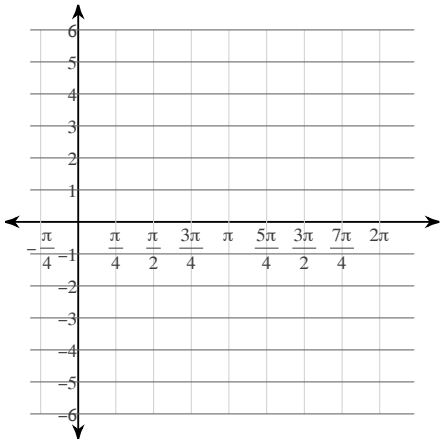
43) $y = 4\sin 3\theta - 2$



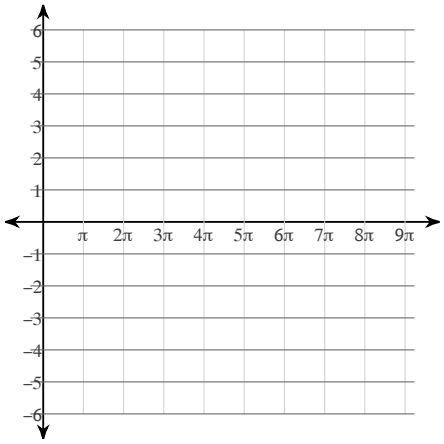
44) $y = \frac{1}{2} \cdot \sin \frac{\theta}{4} - 2$



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



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



Answers to Final Review - Trigonometric Functions

1) Amplitude: 5
Period: 72°

2) Amplitude: 7
Period: 60°

3) Amplitude: $\frac{1}{5}$
Period: 45°

4) Amplitude: $\frac{1}{2}$
Period: 2160°

5) Amplitude: 9
Period: 2880°

6) Amplitude: $\frac{1}{9}$
Period: 72°

7) Amplitude: 3
Period: π

8) Amplitude: 10
Period: $\frac{\pi}{3}$

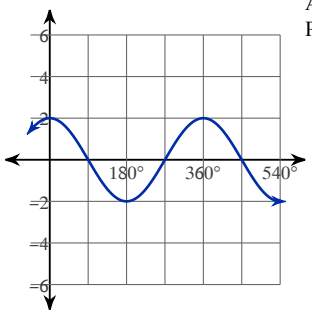
9) Amplitude: $\frac{1}{6}$
Period: π

10) Amplitude: $\frac{1}{7}$
Period: $\frac{\pi}{4}$

11) Amplitude: $\frac{1}{6}$
Period: $\frac{\pi}{3}$

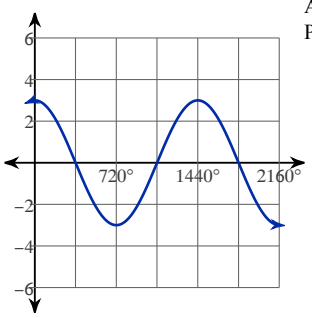
12) Amplitude: $\frac{1}{10}$
Period: π

13)



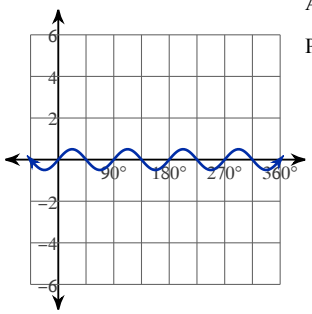
Amplitude: 2
Period: 360°

14)



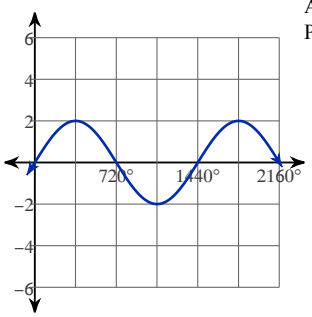
Amplitude: 3
Period: 1440°

15)



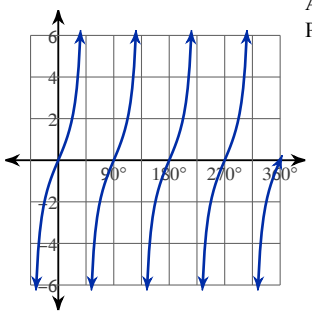
Amplitude: $\frac{1}{2}$
Period: 90°

16)



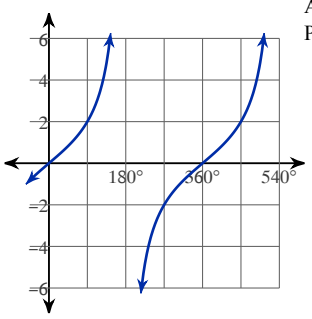
Amplitude: 2
Period: 1440°

17)



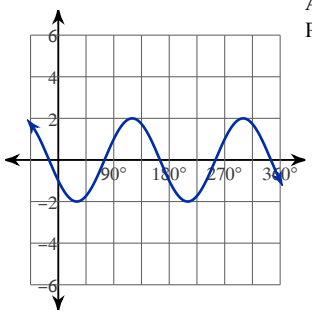
Amplitude: None
Period: 90°

18)



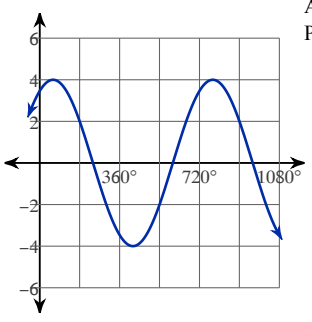
Amplitude: None
Period: 360°

19)



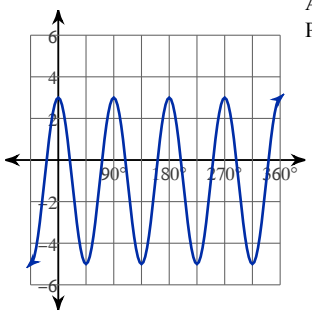
Amplitude: 2
Period: 180°

20)



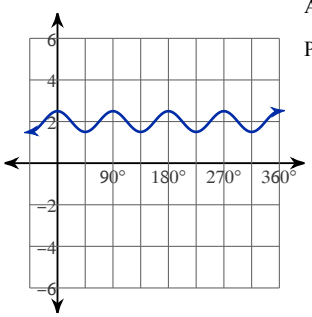
Amplitude: 4
Period: 720°

21)



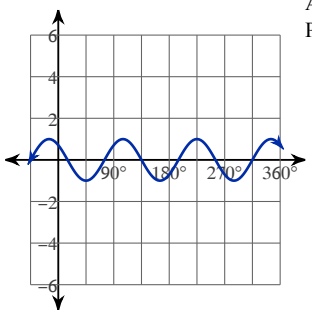
Amplitude: 4
Period: 90°

22)



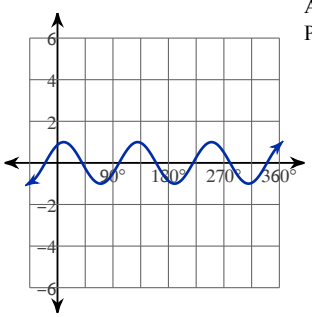
Amplitude: $\frac{1}{2}$
Period: 90°

23)



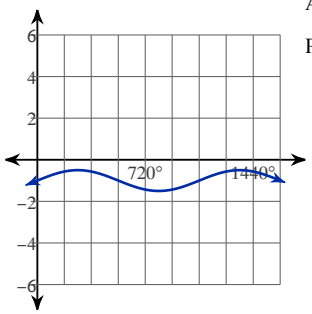
Amplitude: 1
Period: 120°

24)



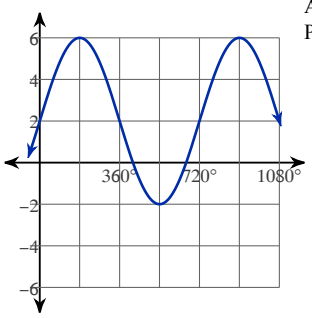
Amplitude: 1
Period: 120°

25)



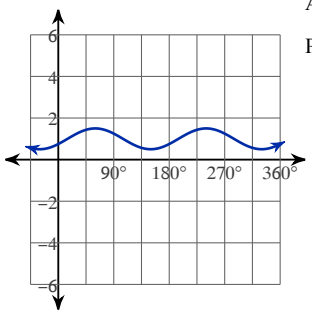
Amplitude: $\frac{1}{2}$
Period: 1080°

26)



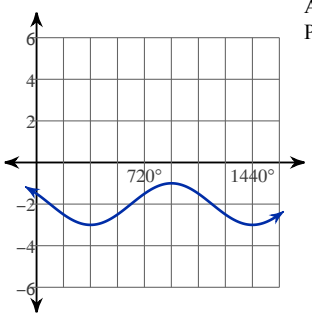
Amplitude: 4
Period: 720°

27)



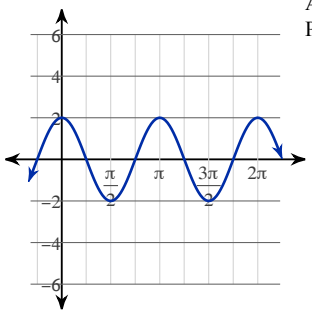
Amplitude: $\frac{1}{2}$
Period: 180°

28)



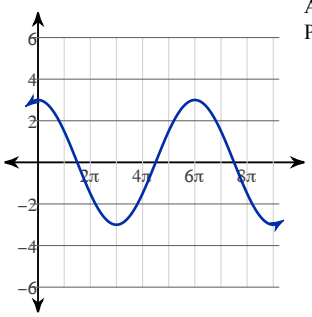
Amplitude: 1
Period: 1080°

29)



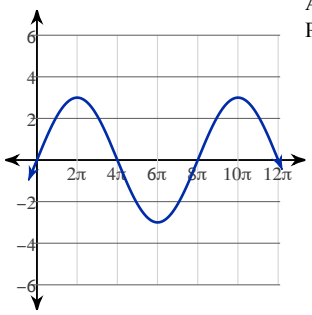
Amplitude: 2
Period: π

30)



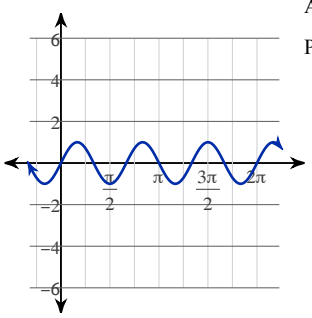
Amplitude: 3
Period: 6π

31)



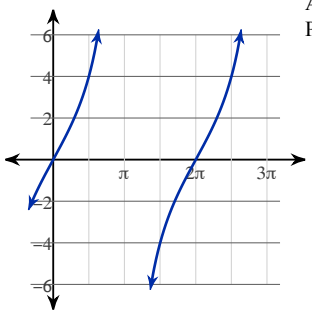
Amplitude: 3
Period: 8π

32)



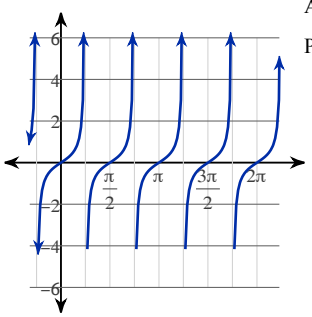
Amplitude: 1
Period: $\frac{2\pi}{3}$

33)



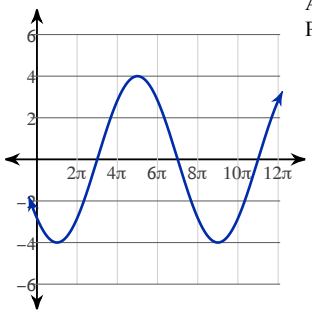
Amplitude: None
Period: 2π

34)



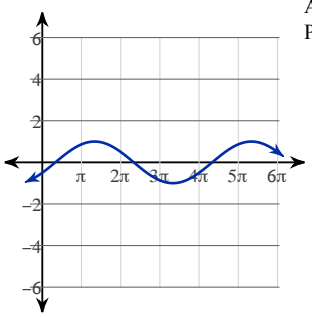
Amplitude: None
Period: $\frac{\pi}{2}$

35)



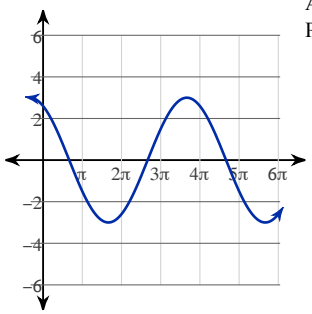
Amplitude: 4
Period: 8π

36)



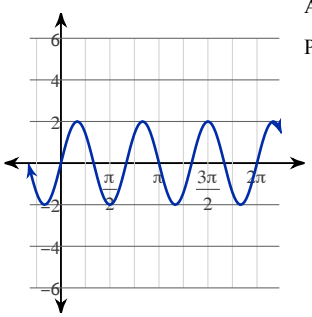
Amplitude: 1
Period: 4π

37)



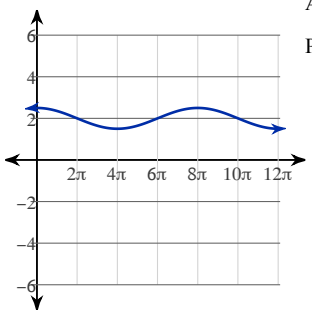
Amplitude: 3
Period: 4π

38)



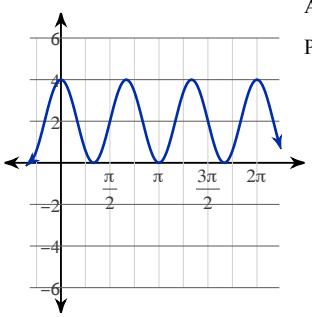
Amplitude: 2
Period: $\frac{2\pi}{3}$

39)



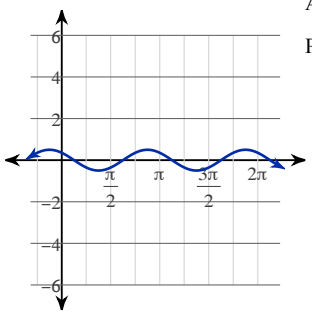
Amplitude: $\frac{1}{2}$
Period: 8π

40)



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

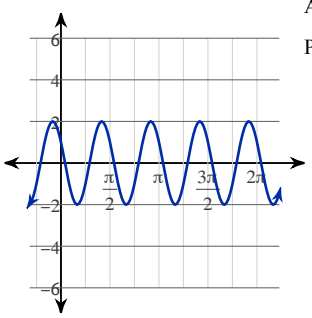
41)



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

Period: π

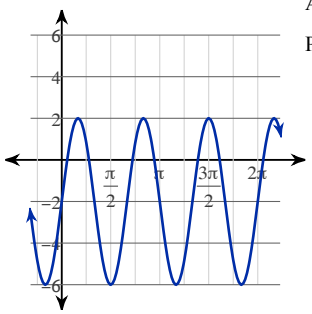
42)



Amplitude: 2

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

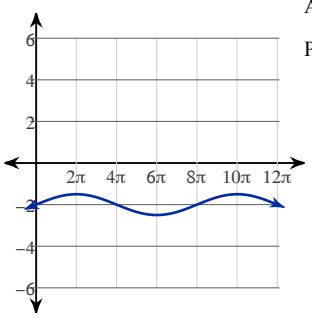
43)



Amplitude: 4

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

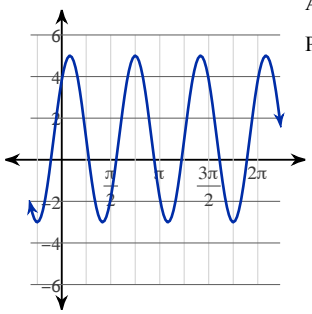
44)



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

Period: 8π

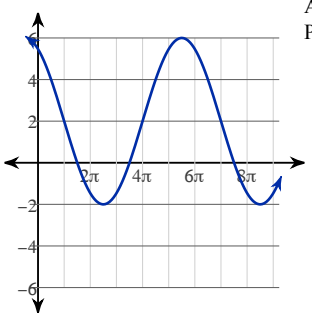
45)



Amplitude: 4

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

46)



Amplitude: 4

Period: 6π