

Graphing Trigonometric Functions III

Date _____

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

1) $y = \frac{1}{2}\sin(2\theta - 120)$

2) $y = -1 + 3\cos(\theta - 30)$

3) $y = -1 + \frac{1}{2}\cos(4\theta - 120)$

4) $y = \frac{1}{2}\cos(2\theta - 30) + 2$

5) $y = 1 + 3\sin(2\theta - 135)$

6) $y = 4\sin(2\theta + 45) + 1$

7) $y = 2\cos\left(-\frac{\theta}{4} - 315\right) + 1$

8) $y = 3\cos(\theta + 60) + 2$

9) $y = -1 + \frac{1}{2}\sin(2\theta + 330)$

10) $y = 4\cos(2\theta + 60) + 1$

11) $y = -2 + 2\cos(2\theta + 60)$

12) $y = \frac{1}{2}\sin(-4\theta + 135) - 2$

13) $y = 3\cos(4\theta + 135)$

14) $y = -2 + 3\sin(4\theta - 30)$

15) $y = 4\sin\left(\frac{\theta}{4} - 210\right) + 1$

16) $y = 1 + 3\sin(\theta - 45)$

17) $y = 4\sin(\theta - 30) + 1$

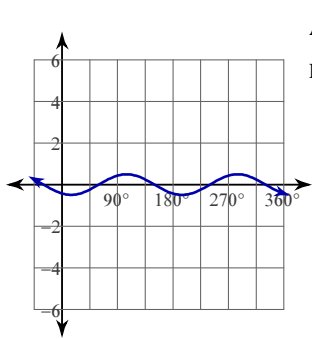
18) $y = 2\cos(3\theta + 120) + 2$

19) $y = 2\sin\left(\frac{\theta}{2} - 150\right) + 1$

20) $y = \frac{1}{2}\sin(3\theta + 60) + 2$

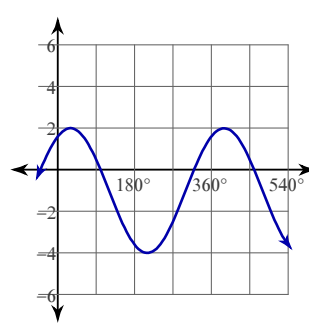
Answers to Graphing Trigonometric Functions III (ID: 1)

1)



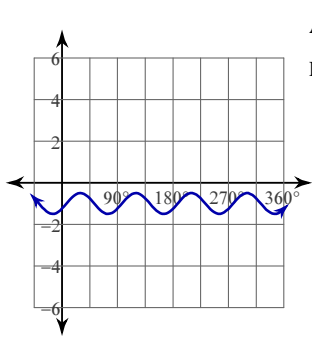
Amplitude: $\frac{1}{2}$
Period: 180°

2)



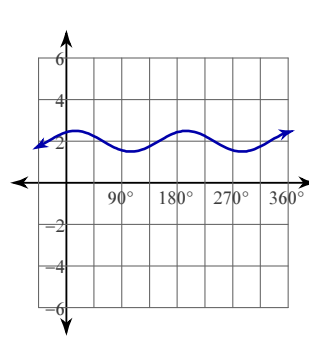
Amplitude: 3
Period: 360°

3)



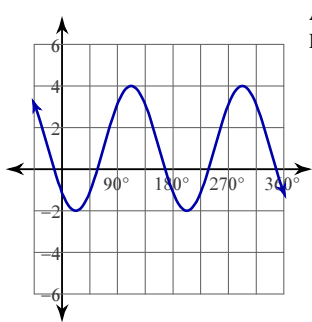
Amplitude: $\frac{1}{2}$
Period: 90°

4)



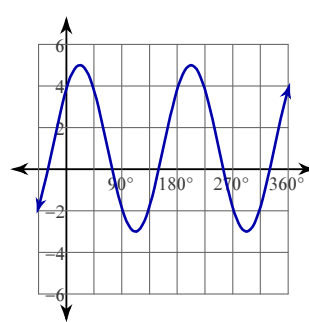
Amplitude: $\frac{1}{2}$
Period: 180°

5)



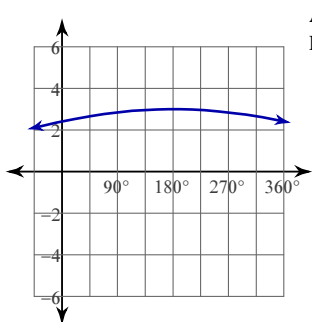
Amplitude: 3
Period: 180°

6)



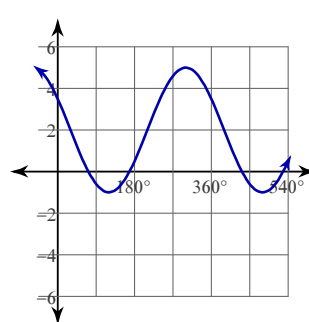
Amplitude: 4
Period: 180°

7)



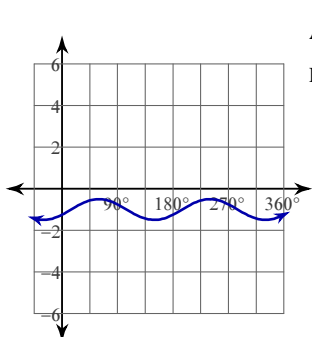
Amplitude: 2
Period: 1440°

8)



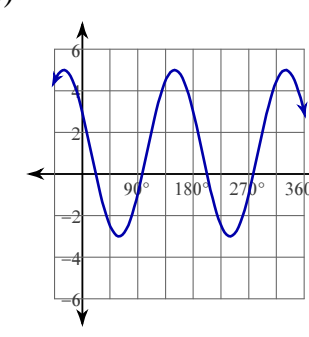
Amplitude: 3
Period: 360°

9)



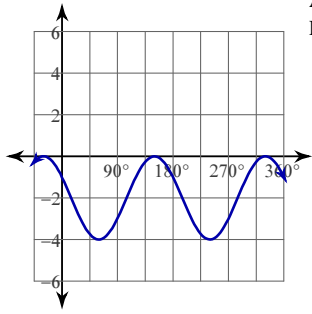
Amplitude: $\frac{1}{2}$
Period: 180°

10)



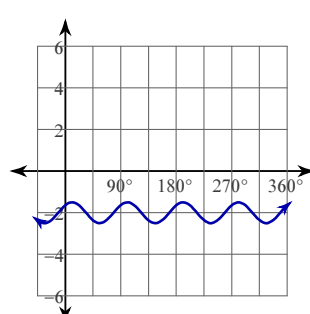
Amplitude: 4
Period: 180°

11)



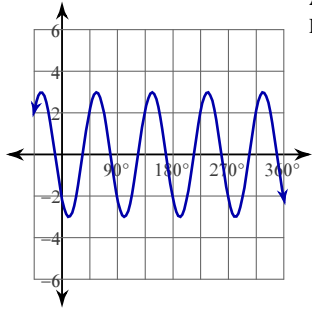
Amplitude: 2
Period: 180°

12)



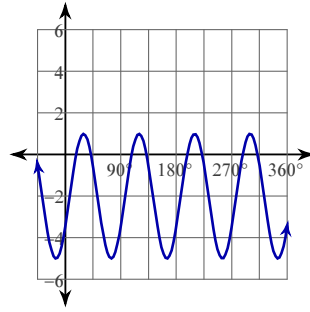
Amplitude: $\frac{1}{2}$
Period: 90°

13)



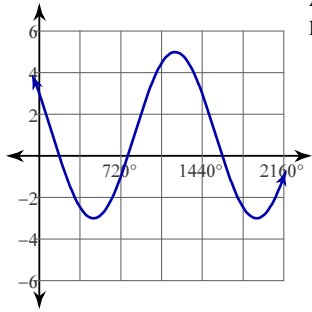
Amplitude: 3
Period: 90°

14)



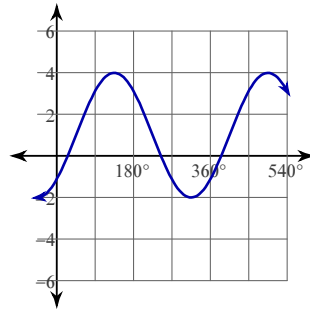
Amplitude: 3
Period: 90°

15)



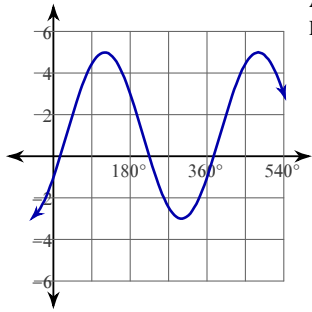
Amplitude: 4
Period: 1440°

16)



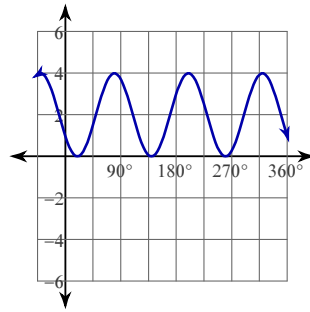
Amplitude: 3
Period: 360°

17)



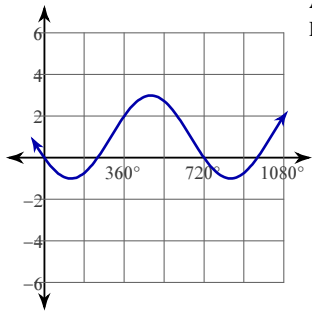
Amplitude: 4
Period: 360°

18)



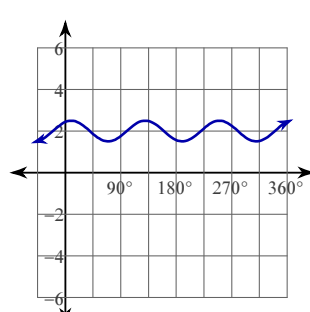
Amplitude: 2
Period: 120°

19)



Amplitude: 2
Period: 720°

20)



Amplitude: $\frac{1}{2}$
Period: 120°

Graphing Trigonometric Functions III

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

1) $y = \frac{1}{2}\sin(2\theta - 135) - 1$

2) $y = 2\cos(\theta - 60) + 2$

3) $y = 2\cos\left(\frac{\theta}{2} + 135\right) - 2$

4) $y = \frac{1}{2}\sin(-4\theta + 135) - 1$

5) $y = 2 + \frac{1}{2}\sin(4\theta + 135)$

6) $y = 2 + \frac{1}{2}\cos\left(\frac{\theta}{4} - 135\right)$

7) $y = 4\cos(4\theta + 60) - 1$

8) $y = \frac{1}{2}\cos\left(\frac{\theta}{2} + 135\right) + 2$

9) $y = \frac{1}{2}\sin(4\theta - 120) + 1$

10) $y = \frac{1}{2}\cos(\theta + 45) - 2$

11) $y = -2 + \frac{1}{2}\cos\left(\frac{\theta}{4} + 135\right)$

12) $y = -2 + \frac{1}{2}\cos(3\theta + 150)$

13) $y = 4\sin(4\theta - 30) - 1$

14) $y = 2\cos(3\theta - 90) + 1$

15) $y = -2 + \frac{1}{2}\cos(2\theta + 150)$

16) $y = \frac{1}{2}\sin(4\theta - 270) + 2$

17) $y = 4\sin(-2\theta + 45) - 1$

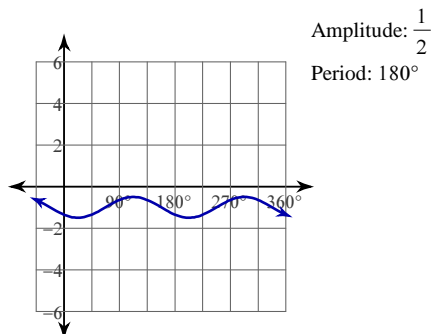
18) $y = 2 + \frac{1}{2}\cos(2\theta + 120)$

19) $y = \frac{1}{2}\cos(2\theta + 135) - 1$

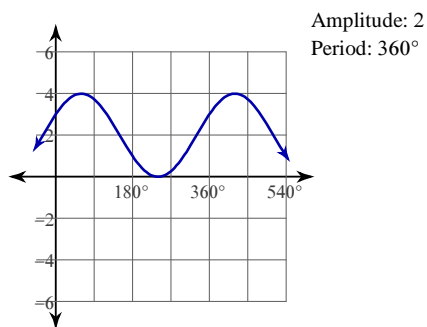
20) $y = 1 + \frac{1}{2}\sin\left(\frac{\theta}{4} - 30\right)$

Answers to Graphing Trigonometric Functions III (ID: 2)

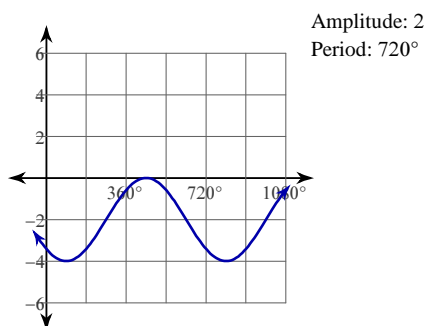
1)



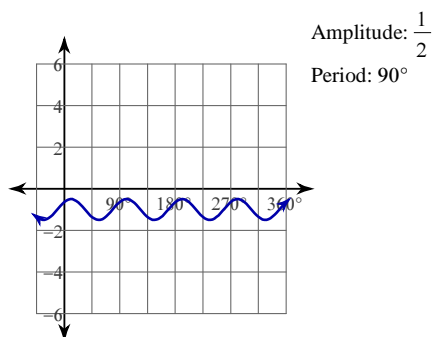
2)



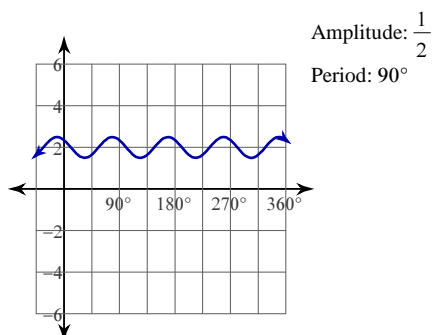
3)



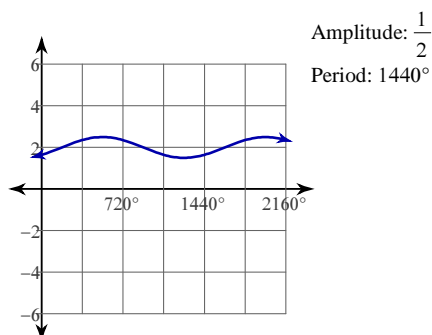
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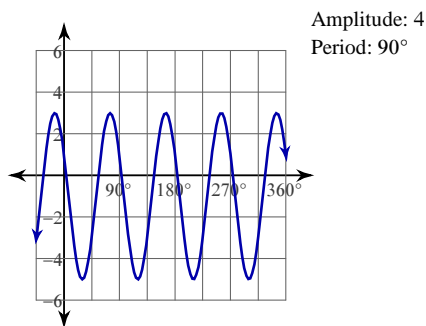
5)



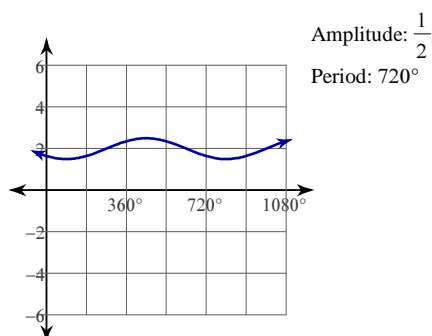
6)



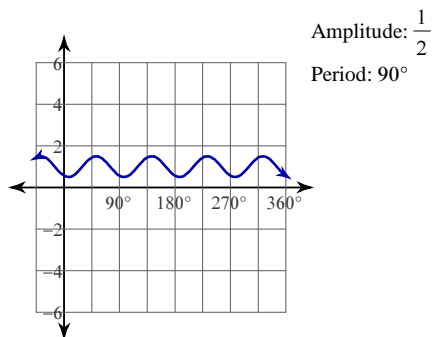
7)



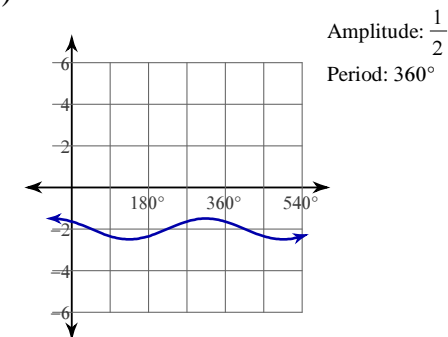
8)



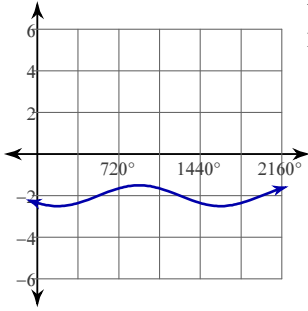
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10)

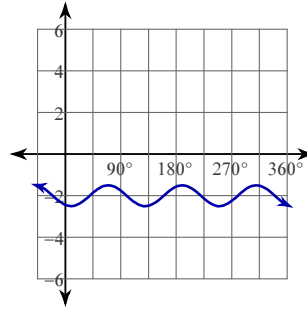


11)



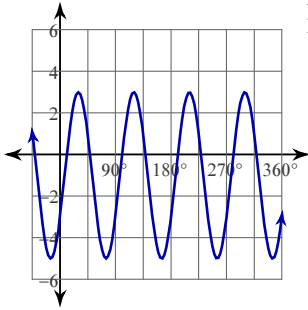
Amplitude: $\frac{1}{2}$
 Period: 1440°

12)



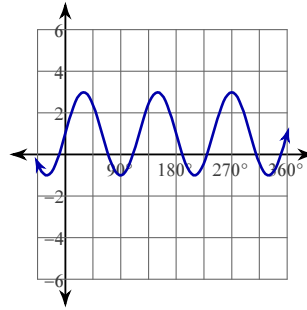
Amplitude: $\frac{1}{2}$
 Period: 120°

13)



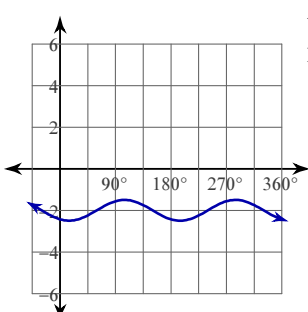
Amplitude: 4
 Period: 90°

14)



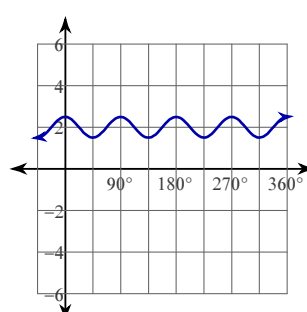
Amplitude: 2
 Period: 120°

15)



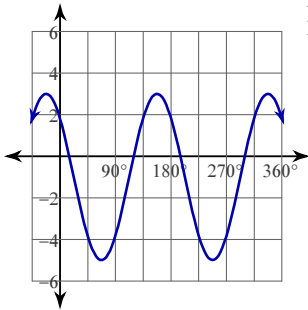
Amplitude: $\frac{1}{2}$
 Period: 180°

16)



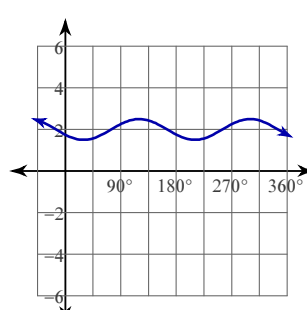
Amplitude: $\frac{1}{2}$
 Period: 90°

17)



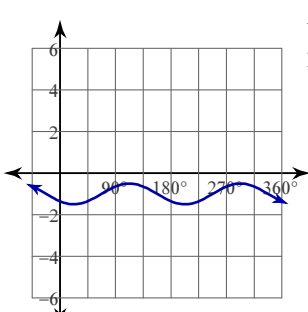
Amplitude: 4
 Period: 180°

18)



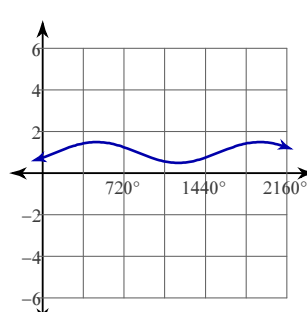
Amplitude: $\frac{1}{2}$
 Period: 180°

19)



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

20)



Amplitude: $\frac{1}{2}$
 Period: 1440°

Graphing Trigonometric Functions III

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

1) $y = \frac{1}{2} \cos \left(\frac{\theta}{4} + 30 \right) - 2$

2) $y = \frac{1}{2} \sin \left(\frac{\theta}{3} - 45 \right) + 2$

3) $y = 4 \sin (4\theta - 120) + 2$

4) $y = -1 + 2 \sin (4\theta + 225)$

5) $y = -1 + \frac{1}{2} \cos \left(\frac{\theta}{4} + 90 \right)$

6) $y = 3 \sin (3\theta + 225) - 1$

7) $y = \frac{1}{2} \cos (4\theta + 270) + 1$

8) $y = 3 \sin (2\theta + 210) - 2$

9) $y = \frac{1}{2} \cos (2\theta + 135) + 1$

10) $y = 3 \cos (-3\theta + 240) - 1$

11) $y = \frac{1}{2} \sin (3\theta - 45) - 1$

12) $y = 2 + 2 \sin (-2\theta - 60)$

13) $y = \cos (\theta - 315)$

14) $y = \frac{1}{2} \cos (4\theta + 300) - 1$

15) $y = 3 \sin \left(\frac{\theta}{4} + 330 \right) - 1$

16) $y = \frac{1}{2} \cos \left(\frac{\theta}{3} - 120 \right) + 1$

17) $y = -1 + \frac{1}{2} \cos \left(\frac{\theta}{4} - 315 \right)$

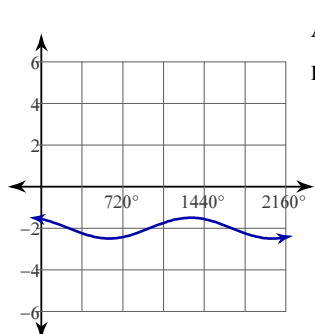
18) $y = 4 \cos \left(\frac{\theta}{4} + 45 \right) - 1$

19) $y = 2 \sin \left(\frac{\theta}{3} + 45 \right) - 1$

20) $y = 4 \cos (4\theta - 120) + 2$

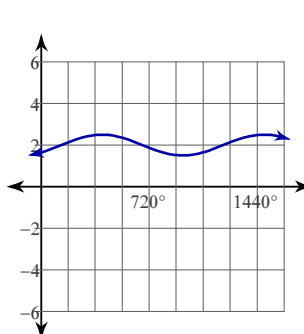
Answers to Graphing Trigonometric Functions III (ID: 3)

1)



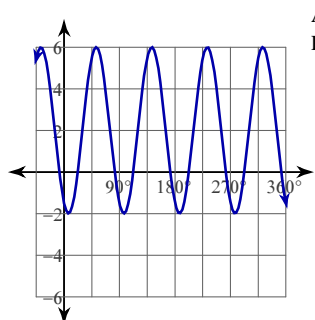
Amplitude: $\frac{1}{2}$
Period: 1440°

2)



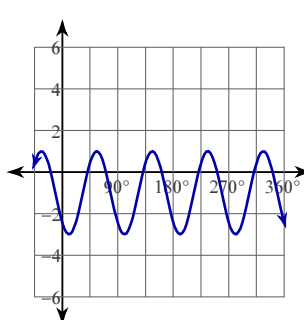
Amplitude: $\frac{1}{2}$
Period: 1080°

3)



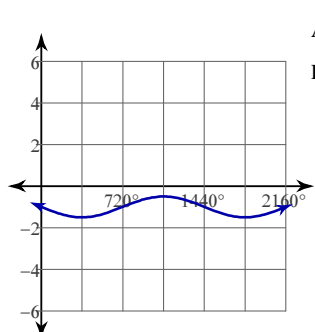
Amplitude: 4
Period: 90°

4)



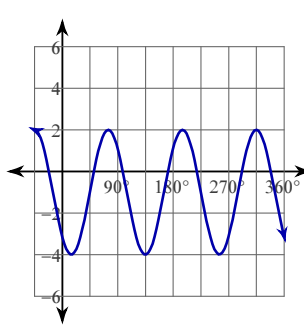
Amplitude: 2
Period: 90°

5)



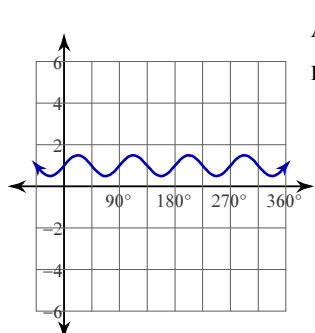
Amplitude: $\frac{1}{2}$
Period: 1440°

6)



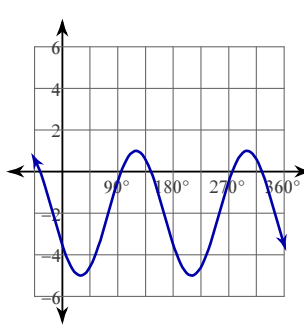
Amplitude: 3
Period: 120°

7)



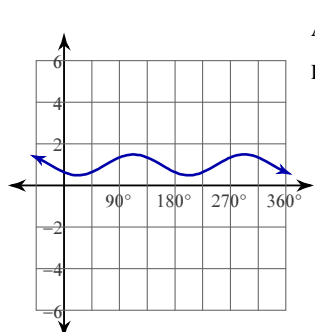
Amplitude: $\frac{1}{2}$
Period: 90°

8)



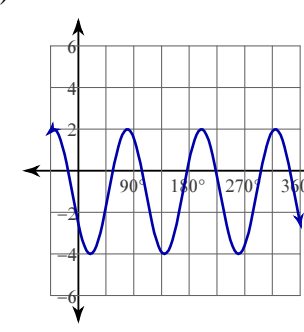
Amplitude: 3
Period: 180°

9)



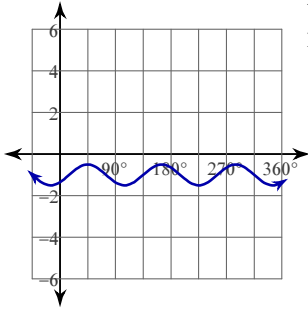
Amplitude: $\frac{1}{2}$
Period: 180°

10)



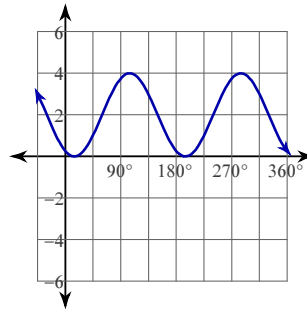
Amplitude: 3
Period: 120°

11)



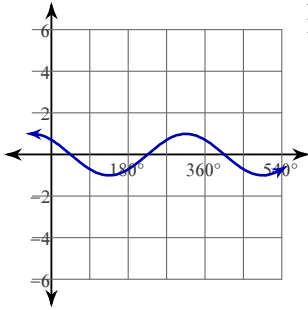
Amplitude: $\frac{1}{2}$
 Period: 120°

12)



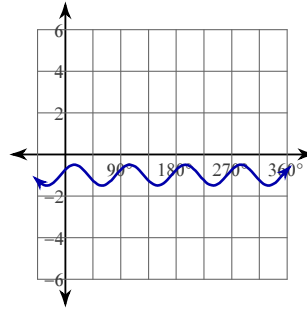
Amplitude: 2
 Period: 180°

13)



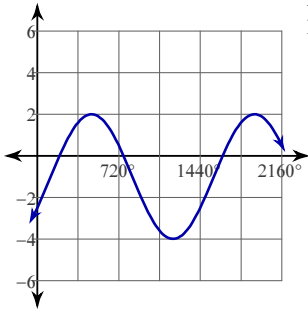
Amplitude: 1
 Period: 360°

14)



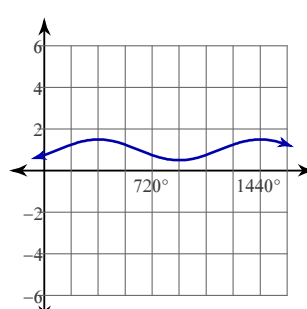
Amplitude: $\frac{1}{2}$
 Period: 90°

15)



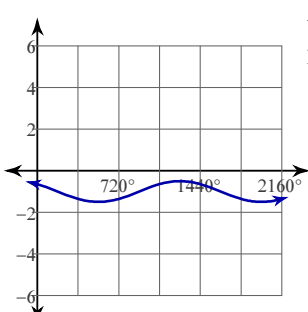
Amplitude: 3
 Period: 1440°

16)



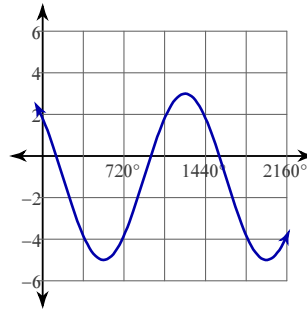
Amplitude: $\frac{1}{2}$
 Period: 1080°

17)



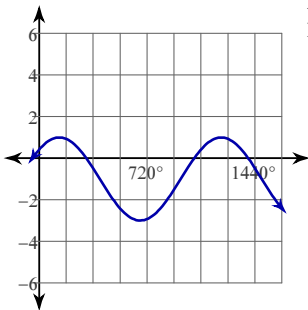
Amplitude: $\frac{1}{2}$
 Period: 1440°

18)



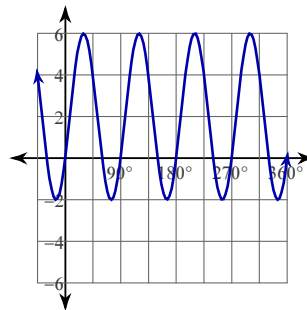
Amplitude: 4
 Period: 1440°

19)



Amplitude: 2
 Period: 1080°

20)



Amplitude: 4
 Period: 90°