Algebra 2 - Mr. C. - All wok on looseleaf Name_____

Week 3 Practice - Ref. Ch. 11-1

Date_____ Period____

Graph each function using degrees.

1) $y = 3\sin\theta$

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

3) $y = 1 + 4\sin\theta$

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

5) $y = 4\sin\theta - 1$

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

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

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

9) $y = 4\sin\theta$

10) $y = 3\sin\theta$

11) $y = \sin\frac{\theta}{4}$

12) $y = \sin 4\theta$

13) $y = \sin\frac{\theta}{3}$

14) $y = \sin 2\theta$

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

16) $y = \sin 3\theta$

Graph each function using radians.

17) $y = \sin\frac{\theta}{4}$

18) $y = \sin 3\theta$

19) $y = \sin 4\theta$

20) $y = \sin 2\theta$

21) $y = \sin\frac{\theta}{3}$

22) $y = \sin\frac{\theta}{2}$

Graph each function using degrees.

23) $y = 2\sin(4\theta + 135) + 2$

24) $y = 2 + \frac{1}{2} \cdot \sin(2\theta + 30)$

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

26) $y = \frac{1}{2} \cdot \sin(4\theta + 60) - 1$

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

28) $y = 4\sin\left(\frac{\theta}{4} + 60\right) + 2$

29) $y = 3\sin\left(\frac{\theta}{2} + 300\right) + 2$

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

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

31) $y = \sin\frac{\theta}{5}$

32) $y = 3\sin\left(\frac{\theta}{7} + 90\right) - 5$

33) $y = -1 + 10\sin 8\theta$

34) $y = -5 + 3\sin\left(\frac{\theta}{3} + 60\right)$

35) $y = \sin(6\theta - 30) - 2$

36) $y = 2\sin(7\theta + 30) + 1$

37) $y = 7\sin(4\theta + 60) - 3$

38) $y = 4 + \frac{1}{9} \cdot \sin(5\theta + 135)$

39) $y = -2 + \frac{1}{9} \cdot \sin(5\theta + 90)$

40) $y = 9\sin\left(\frac{\theta}{6} + 30\right) - 3$

41) $y = 6\sin(3\theta - 150) - 1$

42) $y = -2 + 5\sin\theta$

43) $y = 7\sin(2\theta - 30) + 5$

44) $y = \frac{1}{7} \cdot \sin(5\theta - 270) - 4$

45) $y = 10\sin(\theta - 225) + 5$

46) $y = 10\sin(6\theta + 30) + 1$

47) $y = 6\sin\left(\frac{\theta}{6} + 135\right) + 5$

48) $y = \frac{1}{5} \cdot \sin(2\theta - 120) - 3$

49) $y = 3\sin\frac{\theta}{4}$

50) $y = -2 + 10\sin(5\theta + 150)$

Answers to Week 3 Practice - Ref. Ch. 11-1 (ID: 1)

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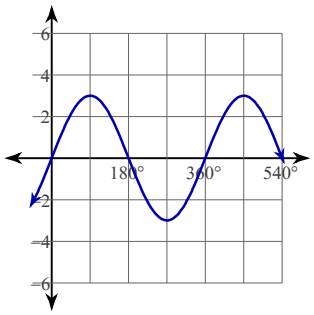

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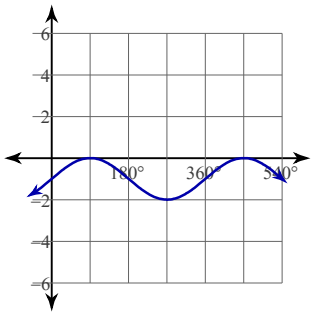

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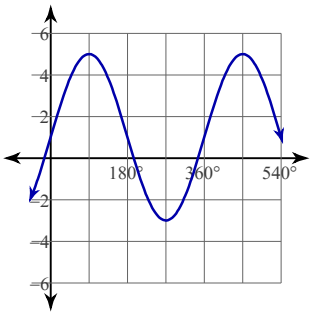

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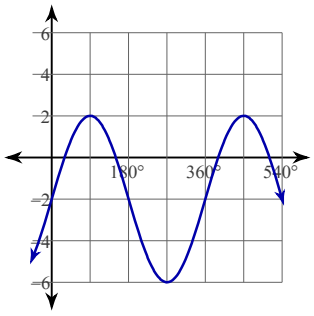

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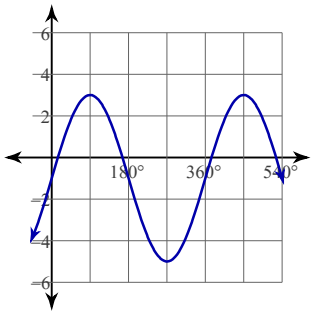

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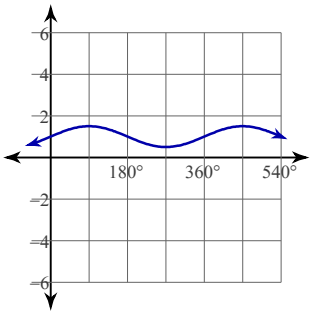

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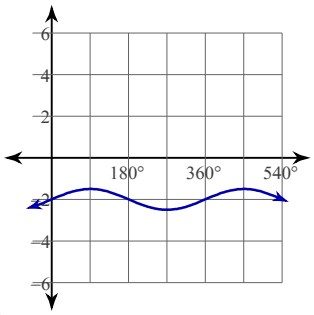

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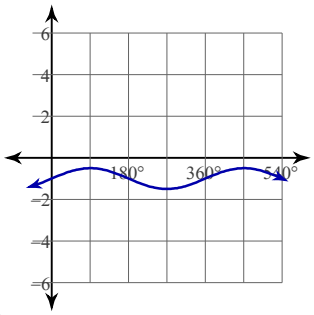

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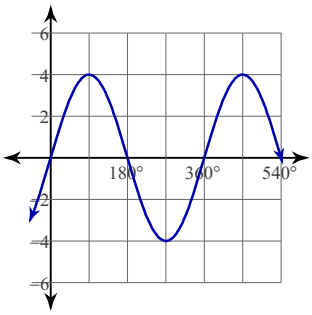

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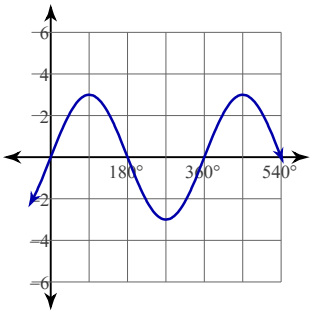

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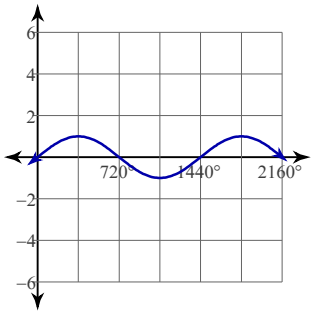

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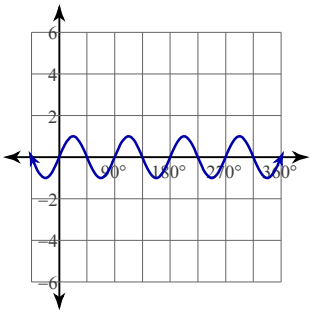

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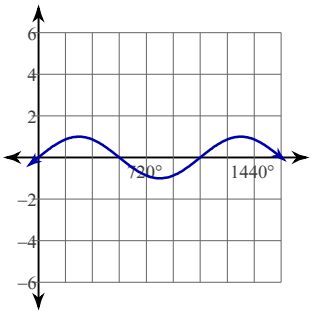

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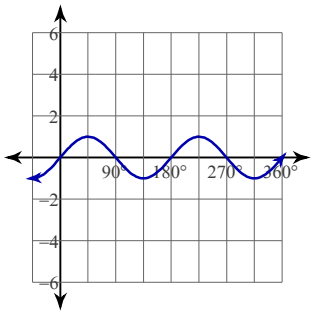

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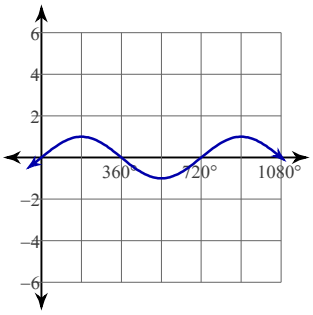

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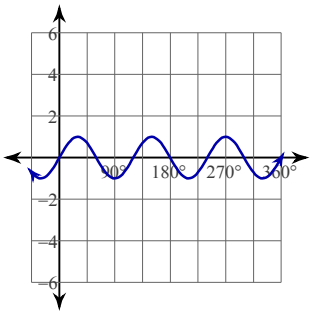

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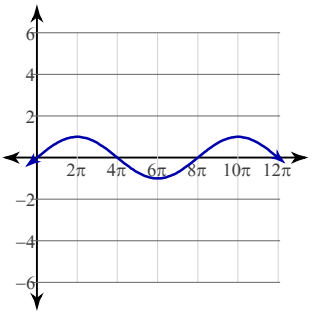

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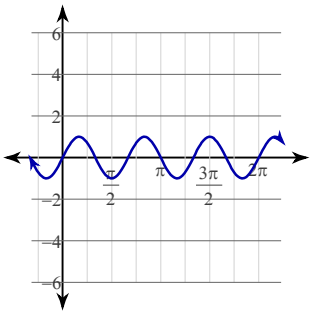

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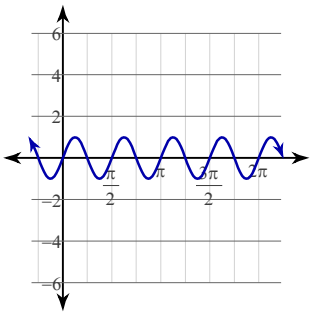

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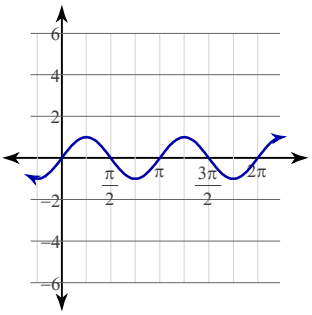

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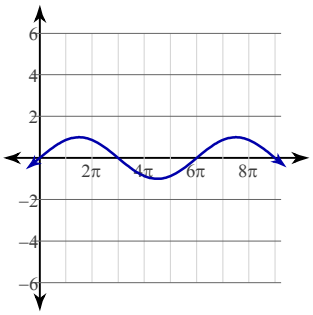

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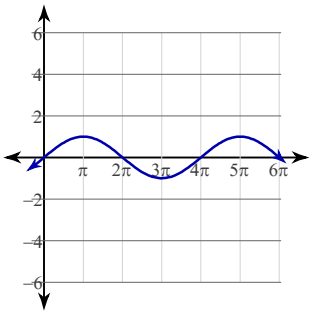

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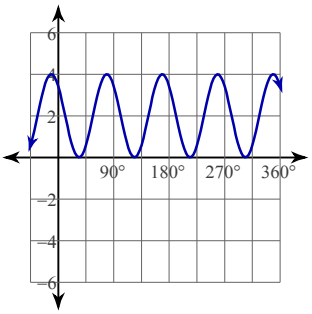

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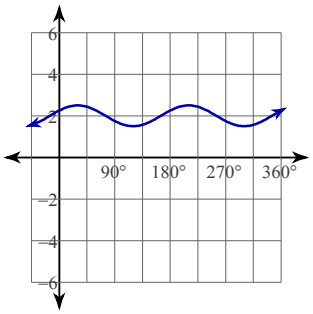

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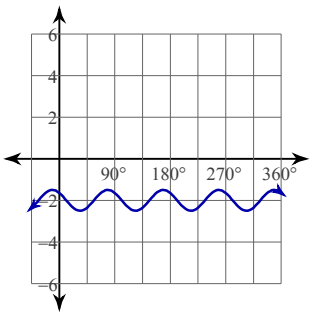

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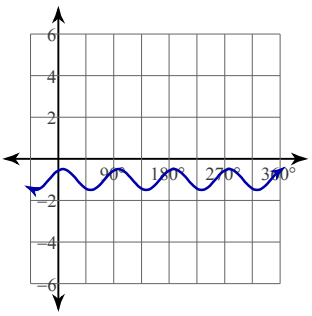

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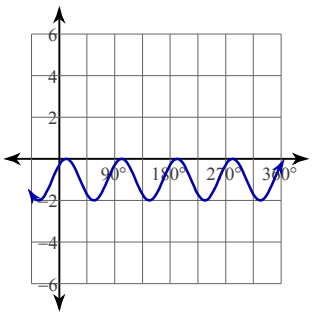

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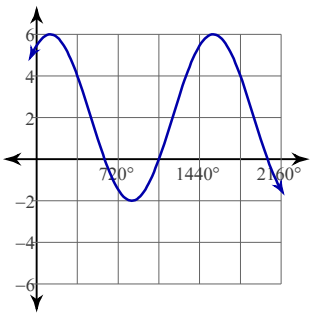

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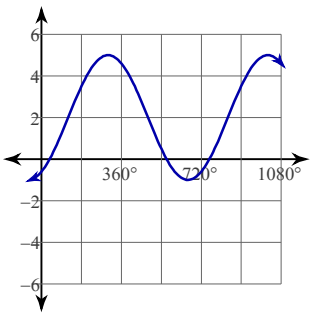

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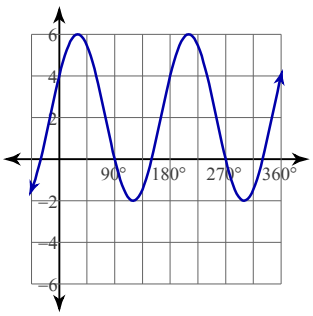

31) Amplitude: 1
Period: 1800°

32) Amplitude: 3
Period: 2520°

33) Amplitude: 10
Period: 45°

34) Amplitude: 3
Period: 1080°

35) Amplitude: 1
Period: 60°

36) Amplitude: 2
Period: $\frac{360}{7}°$

37) Amplitude: 7
Period: 90°

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

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

40) Amplitude: 9
Period: 2160°

41) Amplitude: 6
Period: 120°

42) Amplitude: 5
Period: 360°

43) Amplitude: 7
Period: 180°

44) Amplitude: $\frac{1}{7}$
Period: 72°

45) Amplitude: 10
Period: 360°

46) Amplitude: 10
Period: 60°

47) Amplitude: 6
Period: 2160°

48) Amplitude: $\frac{1}{5}$
Period: 180°

49) Amplitude: 3
Period: 1440°

50) Amplitude: 10
Period: 72°