pg. 699 # 1-13, 17-23, 35

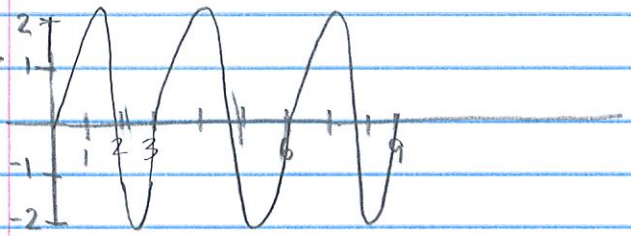
1. max to max
or x-intercept to x-intercept
period = 5

4. is not. no y-values repeat

10. amp = $\frac{1}{2}$(max - min)
$= \frac{1}{2}(4-(-4))$
$= \frac{1}{2}(8)$
$= 4$

17. Probably. The average monthly temperatures should be pretty consistent every year, thus the y-values would repeat in a cyclical pattern

21. peak to peak 5 boxes. Each box = 0.2 s
a) $5(0.2) = 1$ sec.
b) amp = $\frac{1}{2}$(max - min)
$\frac{1}{2}(6-0)$
$= 3$

22. 

Answers for Lesson 13-1, pp. 699–702 Exercises

1. $x = -2$ to $x = 3$, $x = 2$ to $x = 7$; 5

2. $x = 0$ to $x = 4$, $x = 5$ to $x = 9$; 4

3. $x = 0$ to $x = 4$, $x = 2$ to $x = 6$; 4

4. not periodic

5. periodic; 12

6. not periodic

7. not periodic

8. periodic; 8

9. periodic; 7

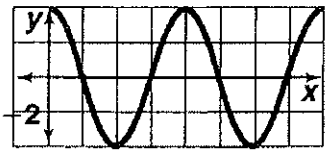
10. 4

11. 3

12. 1

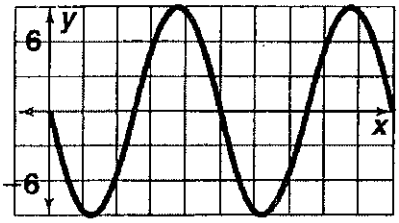
13. 2

14.



1 unit on the *x*-axis is 0.005 s.

15.



1 unit on the *x*-axis is 0.001 s.

16. **a.** y

b. x

17. Answers may vary. Sample: Yes; average monthly temperatures for three years should be cyclical due to the variation of the seasons.

18. Answers may vary. Sample: No; population usually increases or decreases but is not cyclical.

19. Answers may vary. Sample: Yes; traffic that passes through an intersection should be at the same levels for the same times of day for two consecutive work days.

20. 60 beats per min

21. **a.** 1 s

b. 1.5 mV

22. Check students' work.

23. 3, -3, 4

35. C