Check Your Understanding

Example 1 p. 188 Determine whether each sequence is an arithmetic sequence. Write *yes* or *no*. Explain.

1. 18, 16, 15, 13, …

2. 4, 9, 14, 19, …

Example 2 p. 188 Find the next three terms of each arithmetic sequence.

3. 12, 9, 6, 3, …

4. −2, 2, 6, 10, …

Example 3 p. 189 Write an equation for the nth term of each arithmetic sequence. Then graph the first five terms of the sequence.

5. 15, 13, 11, 9, …

6. −1, −0.5, 0, 0.5, …

Example 4 p. 190

7. SAVINGS Kaia has $525 in a savings account. After one month she has $580 in the account. The next month the balance is $635. The balance after the third month is $690. Write a function to represent the arithmetic sequence. Then graph the function.

Practice and Problem Solving

= **Step-by-Step Solutions** begin on page R12.
Extra Practice begins on page 815.

Example 1 p. 188 Determine whether each sequence is an arithmetic sequence. Write *yes* or *no*. Explain.

8. −3, 1, 5, 9, …

9. $\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}, \ldots$

10. −10, −7, −4, 1, …

11. −12.3, −9.7, −7.1, −4.5, …

Example 2 p. 188 Find the next three terms of each arithmetic sequence.

12. 0.02, 1.08, 2.14, 3.2, …

13. 6, 12, 18, 24, …

14. 21, 19, 17, 15, …

15 $-\frac{1}{2}, 0, \frac{1}{2}, 1, \ldots$

16. $2\frac{1}{3}, 2\frac{2}{3}, 3, 3\frac{1}{3}, \ldots$

17. $\frac{7}{12}, 1\frac{1}{3}, 2\frac{1}{12}, 2\frac{5}{6}, \ldots$

Example 3 p. 189 Write an equation for the nth term of the arithmetic sequence. Then graph the first five terms in the sequence.

18. −3, −8, −13, −18, …

19. −2, 3, 8, 13, …

20. −11, −15, −19, −23, …

21. −0.75, −0.5, −0.25, 0, …

Example 4 p. 190

22. AMUSEMENT PARKS Shiloh and her friends spent the day at an amusement park. In the first hour, they rode two rides. After 2 hours, they had ridden 4 rides. They had ridden 6 rides after 3 hours.

a. Write a function to represent the arithmetic sequence.

b. Graph the function and determine the domain.

23. JOBS The table shows how Ryan is paid at his lumber yard job.

Linear Feet of 2×4 Planks Cut	10	20	30	40	50	60	70
Amount Paid in Commission ($)	8	16	24	32	40	48	56

a. Write a function to represent Ryan's commission.

b. Graph the function and determine the domain.

NAME _____ DATE _____ PERIOD _____

3-5 Skills Practice

Arithmetic Sequences as Linear Functions

Determine whether each sequence is an arithmetic sequence. Write *yes* or *no*. Explain.

1. 4, 7, 9, 12, . . .

2. 15, 13, 11, 9, . . .

3. 7, 10, 13, 16, . . .

4. −6, −5, −3, −1, . . .

5. −5, −3, −1, 1, . . .

6. −9, −12, −15, −18, . . .

7. 10, 15, 25, 40, . . .

8. −10, −5, 0, 5, . . .

Find the next three terms of each arithmetic sequence.

9. 3, 7, 11, 15, . . .

10. 22, 20, 18, 16, . . .

11. −13, −11, −9, −7 . . .

12. −2, −5, −8, −11, . . .

13. 19, 24, 29, 34, . . .

14. 16, 7, −2, −11, . . .

15. 2.5, 5, 7.5, 10, . . .

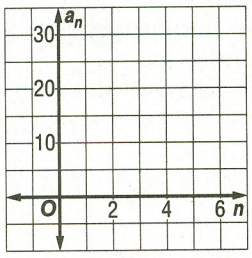
16. 3.1, 4.1, 5.1, 6.1, . . .

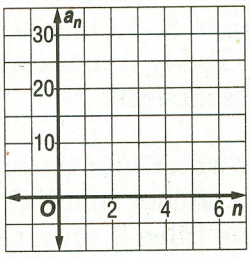
Write an equation for the *n*th term of each arithmetic sequence. Then graph the first five terms of the sequence.

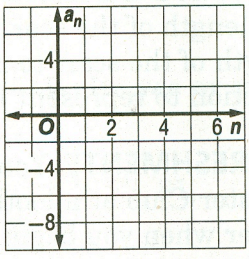
17. 7, 13, 19, 25, . . .

18. 30, 26, 22, 18, . . .

19. −7, −4, −1, 2, . . .







20. VIDEO DOWNLOADING Brian is downloading episodes of his favorite TV show to play on his personal media device. The cost to download 1 episode is $1.99. The cost to download 2 episodes is $3.98. The cost to download 3 episodes is $5.97. Write a function to represent the arithmetic sequence.