Name_____ Date _____

4.6 Practice B

In Exercises 1 and 2, write the next three terms of the arithmetic sequence.

1. First term: 8
Common difference: 5

2. First term: 40
Common difference: -12

In Exercises 3–6, find the common difference of the arithmetic sequence.

3. $-4, -1, 2, 5, \ldots$

4. $\frac{2}{7}, \frac{4}{7}, \frac{6}{7}, \frac{8}{7}, \ldots$

5. $8.6, 8.4, 8.2, 8.0, \ldots$

6. $7\pi, 5\pi, 3\pi, \pi, \ldots$

In Exercises 7 and 8, graph the arithmetic sequence.

7. $4, 18, 32, 46, \ldots$

8. $10, 7.5, 5, 2.5, \ldots$

In Exercises 9 and 10, determine whether the sequence is arithmetic. If so, find the common difference.

9. $67, 52, 37, 22, \ldots$

10. $128, 32, 8, 2, \ldots$

In Exercises 11–14, write an equation for the *n*th term of the arithmetic sequence. Then find a_{10}.

11. $-9, -1, 7, 15, \ldots$

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

13. $-160, -180, -200, -220, \ldots$

14. $-\frac{7}{3}, -\frac{5}{3}, -1, -\frac{1}{3}, \ldots$

15. The first term of an arithmetic sequence is 3. The common difference of the sequence is 10 less than twice the first term. Write the next three terms of the sequence.

16. The volume (in cubic feet) of the water in a tank each hour after turning on a faucet can be estimated by the sequence in the table.

Hours after turning on faucet	1	2	3	4
Volume (cubic feet)	12	15	18	21

a. Write a function that represents the arithmetic sequence.

b. The tank is in the shape of a rectangular box. The length is 6 feet, the width is 3 feet, and the height is 2 feet. Find the *n*th term that represents a full tank. Explain.