

**4.6****Practice A**

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

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| 1. First term: 3<br>Common difference: 11 | 2. First term: 15<br>Common difference: $-4$ |
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In Exercises 3–6, find the common difference of the arithmetic sequence.

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| 3. 9, 15, 21, 27, ...       | 4. 240, 210, 180, 150, ...                              |
| 5. $-15, -10, -5, 0, \dots$ | 6. $2, 2\frac{1}{4}, 2\frac{1}{2}, 2\frac{3}{4}, \dots$ |

In Exercises 7 and 8, graph the arithmetic sequence.

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| 7. 3, 10, 17, 24, ... | 8. $-2, -6, -10, -14, \dots$ |
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In Exercises 9 and 10, determine whether the sequence is arithmetic. If so, find the common difference.

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| 9. 12, 17, 21, 26, ... | 10. $-10, -3, 4, 11, \dots$ |
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In Exercises 11–14, write an equation for the  $n$ th term of the arithmetic sequence. Then find  $a_{10}$ .

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| 11. $-3, -1, 1, 3, \dots$                     | 12. $2, -3, -8, -13, \dots$                                     |
| 13. $4\frac{1}{2}, 6, 7\frac{1}{2}, 9, \dots$ | 14. $\frac{2}{5}, \frac{4}{5}, \frac{6}{5}, \frac{8}{5}, \dots$ |

15. The first term of an arithmetic sequence is 6. The common difference of the sequence is two-thirds the first term. Write the next three terms of the sequence.
16. The height (in feet) of the water in a tank each hour after opening its drain can be estimated by the sequence in the table.

<b>Hours after opening drain</b>	1	2	3	4
<b>Height (feet)</b>	18	15	12	9

- Write a function that represents the arithmetic sequence.
- Find and interpret the seventh term.
- Would the eighth term apply in this situation?