

LESSON
9-3**Practice****Arithmetic Sequences and Series**

Determine whether each sequence could be arithmetic. If so, find the common difference and the next term.

1. 41, 24, 7, -10, -27, ...

2. 6, -6, 6, -6, 6, -6, 6, -6, ...

3. $\frac{4}{5}, \frac{13}{10}, \frac{9}{5}, \frac{23}{10}, \frac{14}{5}, \dots$

4. 2, 4, 8, 16, 32, 64, ...

Find the 12th term of each arithmetic sequence.

5. 21, 32, 43, 54, 65, ...

6. 3.7, 3.3, 2.9, 2.5, 2.1, ...

7. 1.8, -1.1, -4, -6.9, -9.8, ...

8. -8, -2.75, 2.5, 7.75, 13, ...

Find the missing terms in each arithmetic sequence.

9. 3, __, __, __, 59, ...

10. -4, __, __, 23, ...

11. 7, __, __, __, __, 62, ...

12. 35, __, __, __, __, __, -7, ...

Find the 10th term of each arithmetic sequence.

13. $a_4 = 12$ and $a_7 = 20.4$

14. $a_3 = 37$ and $a_{17} = -12$

15. $a_{13} = -5$ and $a_{18} = -51$

16. $a_{25} = 18$ and $a_{41} = 62$

Solve.

17. A banquet hall uses tables that seat 4, one person on each side. For a large party, the tables are positioned end to end in a long row. Two tables will seat 6, three tables will seat 8, and four tables will seat 10. How many tables should be set end to end to seat 40?