

Name _____

3-8B Lesson Master**Questions on SPUR Objectives**
See Student Edition pages 215–219 for objectives.**VOCABULARY**

1. Give an example of an arithmetic sequence. Then explain why it is an arithmetic sequence.

SKILLS Objective D

2. Write a recursive formula for this sequence:
0.5, 0.75, 1.00, 1.25,

In 3 and 4, an arithmetic sequence is described. a. Write the first five terms of the sequence. b. Write a recursive formula for the sequence.

3. first term 6, common difference 4

a. _____ b. _____

4. first term 0.3, common difference -0.1

a. _____ b. _____

In 5–8, an arithmetic sequence is given. a. Write a recursive formula for the sequence. b. Write an explicit formula for the sequence.

5. 17, 28, 39, 50, ...

a. _____ b. _____

6. 80, -160, -400, -640, ...

a. _____ b. _____

7. $\frac{1}{3}, \frac{2}{3}, 1, \frac{4}{3}, \dots$

a. _____ b. _____

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8. 8.2, 8.1, 8.0, 7.9, 7.8, 7.7, ...

a. _____ b. _____

PROPERTIES Objective F

In 9-12, determine whether or not the given formula describes an arithmetic sequence. Justify your answer.

9. $a_n = 9n + 18$

10. $t_n = 3n^2 + 4$

11. $u_n = \frac{1}{2}n - 1$

12. $v_n = -n - 30$

USES Objective G

13. Manuel deposits \$3600 in a special account and each week he removes \$300.

a. Write an explicit formula that gives the amount in the account after n weeks.

b. After 6 weeks, how much money is in the account? _____

14. A vehicle emissions test center tests 320 vehicles every weekday.

a. Write an explicit formula that gives the total number of cars tested after n weekdays.

b. How many weeks will it take to test 240,000 cars? _____