

Name \_\_\_\_\_

# 3-7A Lesson Master

**Questions on SPUR Objectives**  
See Student Edition pages 215–219 for objectives.

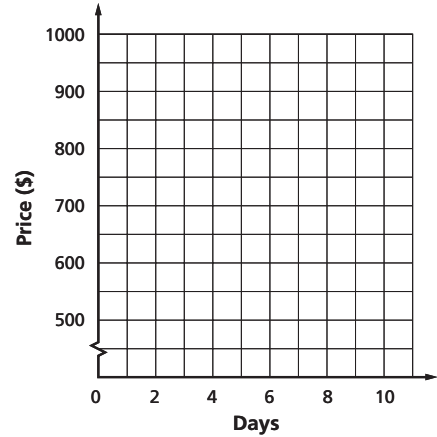
## USES Objective D

1. A guitar store has a used Stratocaster on sale. The starting price is \$850, and they announce that they will drop the price \$25 per day until it sells.

a. Write a recursive formula for the sequence of prices.

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b. At the right, graph the prices for the first ten days.

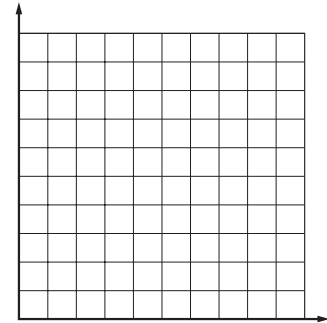


2. On a quiz show, a contestant earns \$100 for correctly answering the first question. For each question after that, it is “double or nothing”—the contestant can double his winnings or lose everything.

a. Write a recursive formula for the sequence of possible winnings.

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b. At the right, graph the first eight terms of the sequence. Choose a good scale for the axes.



c. How many questions does the contestant have to correctly answer to win at least \$5000? \_\_\_\_\_

## REPRESENTATIONS Objective N

In 3 and 4, graph the first six terms of the given sequence.

3.  $s_n = 8n - n^2, n \geq 1$

4. 
$$\begin{cases} h_1 = 8 \\ h_2 = 6 \\ h_n = h_{n-2} - h_{n-1}, n \geq 3 \end{cases}$$

