

Name \_\_\_\_\_

# 5-3A Lesson Master

## Questions on SPUR Objectives

See Student Edition pages 367–371 for objectives.

### SKILLS Objective A

In 1-4, solve using the substitution method.

1. 
$$\begin{cases} 2a + 3b = 19 \\ b = 3a - 1 \end{cases}$$

2. 
$$\begin{cases} y = 3x \\ xy = 1200 \end{cases}$$

3. 
$$\begin{cases} 5x - 2y = 10 \\ y = 2.5x + 3 \end{cases}$$

4. 
$$\begin{cases} 3p - q + 2r = 26 \\ q = 4p - 20 \\ 3p = 2r \end{cases}$$

### PROPERTIES Objective D

5. For what value of  $m$  is the system 
$$\begin{cases} 5x - 2y = 12 \\ y = mx + 2 \end{cases}$$
 inconsistent? \_\_\_\_\_

6. Without finding the actual solution(s), tell how many solutions each system has.

a. 
$$\begin{cases} 3x + 4y = 24 \\ 2x + 5y = 30 \end{cases}$$

b. 
$$\begin{cases} 6x - 3y = 19 \\ 6x - 3y = 24 \end{cases}$$

c. 
$$\begin{cases} y = x^2 \\ y = 25 \end{cases}$$

### USES Objective F

7. A movie download service has two different plans. Under the “unlimited” plan, they charge \$11.95 per month for unlimited downloads. Under the “budget” plan, they charge \$3.95 per month, plus \$2.00 for each download.

a. Write two equations, one for the cost of each plan, where  $C$  is the cost to download  $m$  movies in a month. \_\_\_\_\_

b. Solve your system from Part a. \_\_\_\_\_

c. What does your solution mean in the context of the problem? \_\_\_\_\_

8. In a basketball game, Chamique scored twice as many points as Sheryl, and Merlakia scored five points more than Chamique. Together, they scored 40 points. How many points did each woman score? \_\_\_\_\_