

Name _____

10-3B Lesson Master**Questions on SPUR Objectives**

See pages 650–653 for objectives.

SKILLS Objective A

In 1–10, a system is given. Solve each system by substitution.

1.
$$\begin{cases} x = 2y - 4 \\ 3x - 5y = -11 \end{cases}$$

2.
$$\begin{cases} g = 2h + 3 \\ 4g - 3h = -3 \end{cases}$$

3.
$$\begin{cases} n = 4m - 10 \\ 2n - 3m = 0 \end{cases}$$

4.
$$\begin{cases} y = 0.4z - 2.4 \\ 4y - 10z = -18 \end{cases}$$

5.
$$\begin{cases} a + 7b = 49 \\ b = 7 + a \end{cases}$$

6.
$$\begin{cases} 4y - 2x = 2 \\ x = \frac{2}{3}y \end{cases}$$

7.
$$\begin{cases} 0.2c - 0.4d = -0.4 \\ c = d - 2 \end{cases}$$

8.
$$\begin{cases} 3x - y = -2 \\ y = 2x + 12 \end{cases}$$

9.
$$\begin{cases} x - y = 5 \\ 2x + y = 1 \end{cases}$$

10.
$$\begin{cases} b = -2a + 2 \\ a = b + 7 \end{cases}$$

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SKILLS Objective A

11. To help Kyle study for a test, Cary asked him to solve the system
- $$\begin{cases} 2x - 6y = 8 \\ 8x - 2y = 10 \end{cases} \quad \begin{array}{l} 2x - 6y = 8 \\ x = \frac{6y + 8}{2} \end{array}$$

Kyle's solution was $(1, -1)$. Check his solution by filling in the missing portions at

$$x = \underline{\hspace{2cm}}$$

the right. Was Kyle's solution correct?

$$8(\underline{\hspace{2cm}}) - 2y = 10$$

$$\underline{\hspace{2cm}} - 2y = 10$$

$$22y + 32 = 10$$

$$22y = \underline{\hspace{2cm}}$$

$$y = \underline{\hspace{2cm}} \text{ and}$$

$$x = \underline{\hspace{2cm}}$$

USES Objective G

12. Students having a brownie and cookie sale sold 38 items and earned a total of \$47.25. They sold brownies for \$1.50 each and cookies for \$0.75 each.
- Let b = the number of brownies they sold and c = the number of cookies they sold. Write a system of equations for this situation.
 - How many cookies did they sell? How many brownies did they sell?
13. A teacher is writing a test that is worth 100 points. Some of the questions are worth 4 points each and the rest of the questions are worth 5 points each. There is a total of 23 questions on the test.
- Describe the situation with a system of equations.
 - How many of each kind of question is on the test?