

Name: \_\_\_\_\_



PRACTICE



TUTORIAL

## 5-4 Additional Practice

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- 1. Leveled Practice** Solve the system of equations using elimination.

$$2x - 7y = -13$$

$$8x - 7y = 11$$

Multiply the second equation by .

$$\begin{array}{r} 2x - 7y = -13 \\ -8x + 7y = -11 \\ \hline \end{array}$$

$$\boxed{\phantom{00}} + \boxed{\phantom{00}} = \boxed{\phantom{00}}$$

$$x = \boxed{\phantom{00}}$$

The solution is  $x = \boxed{\phantom{00}}$  and  $y = \boxed{\phantom{00}}$ .

$$\begin{array}{r} 8x - 7y = 11 \\ 8 \cdot (\boxed{\phantom{00}}) - 7y = 11 \\ \boxed{\phantom{00}} - 7y = 11 \\ -7y = \boxed{\phantom{00}} \\ y = \boxed{\phantom{00}} \end{array}$$

- 2.** Solve the system of equations using elimination.

$$7x + 2y = -13$$

$$-7x + y = 25$$

- 3.** Solve the system of equations using elimination.

$$2x + 5y = -23$$

$$5x + 13y = -60$$

- 4.** Two balloons, Balloon A and Balloon B, have a total volume of  $\frac{3}{5}$  gallon. Balloon A has a greater volume than Balloon B. The difference of their volumes is  $\frac{1}{5}$  gallon. Write and solve a system of equations using elimination to find the volume of each balloon.

- 5. Reasoning** Suni needs to solve the system of equations using elimination.

$$-5x + 3y = 15$$

$$2x - 3y = -15$$

- a.** What variable should Suni solve for first? Explain. © MP.2

- b.** Find the solution.



6. Talia is buying beads to make bracelets. She makes a bracelet with 7 plastic beads and 5 metal beads for \$7.25. She makes another bracelet with 9 plastic beads and 3 metal beads for \$6.75. Write and solve a system of equations using elimination to find the price of each bead.

7. Yesterday, a movie theater sold 279 bags of popcorn. A large bag of popcorn costs \$4. A small bag of popcorn costs \$1. In all, the movie theater made \$567 from popcorn sales. Write and solve a system of equations to find how many bags of each size of popcorn were sold.

8. Brent wants to solve this system of equations using subtraction.

$$4x - 5y = 11$$

$$8x - 5y = 27$$

List the steps he should follow to solve the equations. What is the solution?

9. **Higher Order Thinking** Determine the number of solutions for this system of equations by inspection only. Explain.

$$3x - 4y = 6$$

$$12x - 16y = 24$$

## Assessment Practice

10. Two scout troops went shopping for camping supplies at the same store. The first group spent \$299 on 7 flashlights and 11 sleeping bags. The second group spent \$304 on 8 flashlights and 11 sleeping bags. Write and solve a system of equations using elimination to find the price of each flashlight and each sleeping bag.

11. Solve the system of equations.

$$3y - 9x = -6$$

$$4y - 12x = -8$$

