Name _____ Class _____ Date _____

Practice

Form K

Solving Systems Using Elimination

Solve each system using elimination.

1. $x + y = 7$
$x - y = 3$

2. $2x + y = -5$
$3x - y = -10$

3. $x + 3y = 4$
$-x + 2y = -4$

4. $2x + 3y = -12$
$-2x + y = 4$

5. $x - 3y = 27$
$3x - 3y = 39$

6. $4x + 2y = 2$
$3x + y = 4$

7. Writing Solve the system $\begin{matrix} 3x + y = 5 \\ -2x - y = -5 \end{matrix}$ using elimination. Explain how you can check the solution both algebraically and graphically.

8. Open-Ended Write a system of equations that can be solved using elimination without multiplication.

9. There are 72 members of the show choir. There are 6 more boys than girls in the choir.

a. Write the model of a system for the above situation.

b. Do you need to multiply any of the equations by a constant before solving by elimination? Explain.

10. Writing Explain the process you use to determine which variable is the best variable to eliminate in a system of two equations in two variables.

Practice (continued) *Form K*

Solving Systems Using Elimination

11. The sum of two numbers is 19, and their difference is 55. What are the two numbers?

12. For the fundraiser, Will sold 225 candy bars. He earns \$1 for each almond candy bar he sells and \$0.75 for each caramel candy bar he sells. If he earned a total of \$187.50, how many of each type of candy bar did he sell for the fundraiser?

13. There were 155 people at the basketball game. Tickets for the game are \$2.50 for students and \$4 for adults. If the total money received for admission was \$492.50, how many students and adults attended the game?

14. Jocelyn has \$1.95 in her pocket made up of 27 nickels and dimes. How many of each type of coin does she have?

Solve each system using elimination. Tell whether the system has *one solution*, *infinitely many solutions*, or *no solution*.

15. $x - 2y = -1$
$2x + y = 4$

16. $x + 3y = 4$
$2x - 6y = 8$

17. $y = -\frac{1}{2}x - 3$
$x + 2y = -6$

18. $6x - 3y = -18$
$-2x + 4y = 18$

19. $2x - 8y = -16$
$y = \frac{1}{4}x - 2$

20. $3x - y = -1$
$y = 3x - 5$

21. $2x - y = 3$
$5x + 2y = 30$

22. $12x - 8y = 18$
$6x = 4y + 9$