Name _____ Date _____

LESSON 7.4

LESSON 7.4 Practice A

For use with pages 451–457

Match the linear system with an equivalent linear system.

1. $5x - 2y = 8$
$7x + 8y = 3$

2. $7x + 8y = 3$
$8x - 2y = 5$

3. $5x + 2y = 8$
$7x + 8y = 3$

A. $-20x - 8y = -32$
$7x + 8y = 3$

B. $32x - 8y = 20$
$7x + 8y = 3$

C. $20x - 8y = 32$
$7y + 8y = 3$

Describe the first step you would use to solve the linear system.

4. $x + y = 4$
$3x - 7y = 10$

5. $2x + 6y = -1$
$-4x + 7y = 8$

6. $3x - 6y = -1$
$x + y = 4$

7. $5x - 2y = -5$
$10x - 3x = 7$

8. $-3x + 9y = 13$
$7x - 3y = 14$

9. $4x - y = 7$
$10x + 2y = 8$

Solve the linear system by using elimination.

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

11. $4x + y = -8$
$3x + 3y = 3$

12. $3x - y = 10$
$2x + 5y = 35$

13. $5x - 4y = 42$
$x - 6y = 24$

14. $2x + 3y = -10$
$-4x + 5y = -2$

15. $5x + 6y = 100$
$2x + 3y = 46$

16. $3x - 5y = -50$
$12x + 2y = -46$

17. $-6x - 5y = -43$
$7x + 15y = 41$

18. $8x - 6y = 8$
$4x + 5y = 36$

19. $4x + 5y = 100$
$3x - 2y = 6$

20. $-3x + 11y = -38$
$2x + 9y = -40$

21. $5x - 8y = -35$
$-7x - 3y = -22$

22. **Baseball Game** Two families go to a baseball game. One family purchases two adult tickets and three youth tickets for \$33. Another family purchases three adult tickets and two youth tickets for \$37. Let x represent the cost in dollars of one adult ticket and let y represent the cost in dollars of one youth ticket. The linear system given by $2x + 3y = 33$ and $3x + 2y = 37$ represents this situation.

a. Solve the linear system to find the cost of one adult and one youth ticket.

b. How much would it cost two adults and five youths to attend the game?

23. **Electricians** Two different electrical businesses charge different rates. Business A charges \$30 for a service call, plus an additional \$45 per hour for labor. Business B charges \$45 for a service call, plus an additional \$40 per hour for labor.

a. Let x represent the number of hours of labor and let y represent the total charge in dollars. Write a linear system that you could use to find the lengths of a service call for which both businesses charge the same amount.

b. Solve the linear system.

c. When will the businesses charge the same amount?