

LESSON
7.4**Practice B**

For use with pages 451–457

LESSON 7.4

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

1. $3x - 4y = 7$
 $5x + 8y = 10$

2. $9x + 4y = 13$
 $3x + 5y = 9$

3. $5x + 7y = -3$
 $15x + 4y = -5$

4. $7x - 4y = 6$
 $3x - 2y = -15$

5. $7x + 9y = -6$
 $-5x + 14y = 11$

6. $9x - 5y = 14$
 $-6x + 8y = 13$

Solve the linear system by using elimination.

7. $x + 3y = 1$
 $-5x + 4y = -24$

8. $-3x - y = -15$
 $8x + 4y = 48$

9. $x + 7y = -37$
 $2x - 5y = 21$

10. $8x - 4y = -76$
 $5x + 2y = -16$

11. $-3x + 10y = 23$
 $5x + 2y = 55$

12. $9x - 4y = 26$
 $18x + 7y = 22$

13. $4x - 3y = 16$
 $16x + 10y = 240$

14. $20x + 10y = 100$
 $-5x + 4y = 53$

15. $3x - 10y = -25$
 $5x - 20y = -55$

16. $-3x - 4y = 27$
 $5x - 6y = -7$

17. $2x + 7y = 2$
 $5x - 2y = 83$

18. $3x - 5y = -16$
 $2x - 3y = -8$

19. Hockey Game Two families go to a hockey game. One family purchases two adult tickets and four youth tickets for \$28. Another family purchases four adult tickets and five youth tickets for \$45.50. Let x represent the cost in dollars of one adult ticket and let y represent the cost in dollars of one youth ticket.

- Write a linear system that represents this situation.
- Solve the linear system to find the cost of one adult and one youth ticket.
- How much would it cost two adults and five youths to attend the game?

20. Travel Agency A travel agency offers two Chicago outings. Plan A includes hotel accommodations for three nights and two pairs of baseball tickets worth a total of \$557. Plan B includes hotel accommodations for five nights and four pairs of baseball tickets worth a total of \$974. Let x represent the cost in dollars of one night's hotel accommodations and let y represent the cost in dollars of one pair of baseball tickets.

- Write a linear system you could use to find the cost of one night's hotel accommodations and the cost of one pair of baseball tickets.
- Solve the linear system to find the cost of one night's hotel accommodations and the cost of one pair of baseball tickets.

21. Highway Project There are fifteen workers employed on a highway project, some at \$180 per day and some at \$155 per day. The daily payroll is \$2400. Let x represent the number of \$180 per day workers and let y represent the number of \$155 per day workers. Write and solve a linear system to find the number of workers employed at each wage.