

LESSON
7.2**Practice A**

For use with pages 435–441

Solve for the indicated variable.

1. $9x + y = 7$; y 2. $3x - y = 10$; y 3. $x - 4y = 1$; x
 4. $3x + 6y = 9$; x 5. $2x - 2y = 8$; y 6. $\frac{1}{2}x - 3y = 7$; x

Tell which equation you would use to isolate a variable. Explain your reasoning.

7. $x = 5y - 8$ 8. $-3x + 2y = 7$ 9. $4 + 8x = y$
 $4x + 3y = 5$ $y = 6x + 1$ $6x - y = 2$
 10. $-x + y = 8$ 11. $x + 4y = -2$ 12. $2x = 4y + 2$
 $2y - 3x = 5$ $3x - y = 1$ $-5x + 5y = 13$

Solve the linear system by using substitution.

13. $x = 1 - y$ 14. $x = 4y + 14$ 15. $y = -3x - 1$
 $y = 2x - 2$ $y = -3x + 3$ $4x + 3y = 2$
 16. $y = -2x + 4$ 17. $4x - 2y = 14$ 18. $x + 2y = 6$
 $5y - 2x = -16$ $x = 10 - 6y$ $-7x + 3y = -8$
 19. $-8x + 3y = -33$ 20. $x + 2y = 11$ 21. $-3x + y = 8$
 $5x + y = 35$ $3x - 4y = -17$ $x + 2y = -5$
 22. $x + y = 3$ 23. $x - y = 0$ 24. $2x + 2y = 6$
 $3x - 4y = -19$ $2x + 4y = 18$ $3x - 5y = 25$

25. **Driving** Your brother and sister took turns driving on a 635-mile trip that took 11 hours to complete. Your brother drove at a constant speed of 60 miles per hour and your sister drove at a constant speed of 55 miles per hour. Let x be the number of miles your brother drove and let y be the number of miles your sister drove. Solve the linear system $x + y = 11$ and $60x + 55y = 635$ to find the number of miles each of your siblings drove.
26. **Fundraising** A wilderness group is selling cans of nuts and boxes of microwaveable popcorn to raise money for a trip. A can of nuts sells for \$4.50 and a box of microwaveable popcorn sells for \$3. The group sells \$252 in nuts and popcorn and they sell twice as many boxes of popcorn as cans of nuts.
- Let x be the number of boxes of popcorn and let y be the number of cans of nuts sold. Write an equation that relates the number of boxes of popcorn sold to the number of cans of nuts sold.
 - Write an equation that gives the total amount of money made in terms of x and y .
 - How many boxes of popcorn did the group sell? How many cans of nuts did the group sell?