

**LESSON**  
**7.2****Practice C**

For use with pages 435–441

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

1.  $6x - y = 9$   
 $5x - 3y = 2$

2.  $-2x + 4y = 10$   
 $9y = 5x - 7$

3.  $15 - 3x = 2y$   
 $9x - 3y = -6$

**Solve the linear system by using substitution.**

4.  $13x - 4y = 38$   
 $x - 6y = -54$

5.  $10x - 20y = 0$   
 $x + 5y = -28$

6.  $3.5x + 0.5y = 14$   
 $y - x = 4$

7.  $10x + y = -85$   
 $0.1x + 2.5y = 11.6$

8.  $4x - 3y = -22$   
 $0.2x + y = 10.4$

9.  $4x + 7y = 8$   
 $x + 11y = 76$

10.  $3x + 2y = -9$   
 $2x + 3y = 4$

11.  $5x + y = 41$   
 $3x - y = 23$

12.  $-10x + 3y = 21$   
 $x - 6y = 15$

13.  $\frac{1}{2}x + \frac{1}{3}y = \frac{3}{4}$   
 $x - \frac{1}{4}y = \frac{13}{16}$

14.  $x + \frac{1}{5}y = -\frac{7}{5}$   
 $-3x - 6y = \frac{3}{2}$

15.  $6x + 5y = -\frac{7}{3}$   
 $\frac{1}{3}x - y = -\frac{5}{9}$

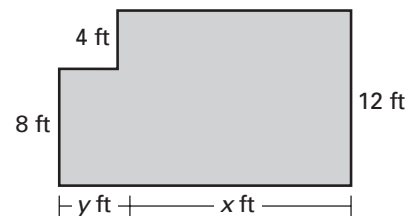
16. Find the values of  $a$  and  $b$  so that the linear system shown has a solution of  $(4, -5)$ .

$ax + by = -10$  Equation 1

$ax - by = -30$  Equation 2

17. **Painting and Cleaning** During the spring and summer, you do a spring yard cleanup for households and you also paint houses. You earn \$8 an hour doing the cleanups and \$12 an hour painting. Last spring and summer, you worked a total of 400 hours and earned \$3800. How many hours did you spend doing yard cleanups? How many hours did you spend painting?

18. **Room Dimensions** The area of the room shown is 224 square feet. The perimeter of the room is 64 feet. Find  $x$  and  $y$ .



19. **Potting Soil** You are creating a potting mix for your window boxes that is 20% peat moss and 80% potting soil. You add 100% potting soil to your mix that is currently 50% peat moss and 50% potting soil. You have 4 buckets of the mix that is half and half. Do you have enough of the half and half mix to make 8 buckets of the mix that is 20% peat moss and 80% potting soil? *Explain.*