

LESSON
6.3
Practice B
For use with the lesson "Solve Linear Systems by Adding or Subtracting"
Rewrite the linear system so that the like terms are arranged in columns.

1. $8x - y = 19$
 $y + 3x = 7$

2. $4x = y - 11$
 $6y + 4x = -3$

3. $9x - 2y = 5$
 $2y = -11x + 8$

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

4. $22x - y = -4$
 $y = 6x - 5$

5. $25 = x - 7y$
 $x + 12y = -8$

6. $3x + 7 = 2y$
 $-2y - 1 = 10x$

7. $x + 9y = 2$
 $14x - 9y = -4$

8. $4x + 3y = -6$
 $3y = -5x + 1$

9. $4x + y = -10$
 $x + y = -14$

Solve the linear system by using elimination.

10. $x + 5y = 28$
 $-x - 2y = -13$

11. $7x - 4y = -30$
 $3x + 4y = 10$

12. $6x + y = 39$
 $-2x + y = -17$

13. $3x = y - 20$
 $-7x - y = 40$

14. $2x - 6y = -10$
 $4x = 10 + 6y$

15. $x - 3y = 6$
 $-2x = 3y + 33$

16. $-3x = y - 20$
 $-y = -5x + 4$

17. $x - \frac{1}{2}y = \frac{11}{2}$
 $-x + 4y = 26$

18. $-\frac{2}{3}x + 6y = 38$
 $x - 6y = -33$

19. $\frac{3}{2}x + y = -\frac{5}{2}$
 $4x + y = -5$

20. $7x - \frac{1}{3}y = -29$
 $2x - \frac{1}{3}y = -9$

21. $\frac{1}{2}x - \frac{3}{2}y = -\frac{29}{2}$
 $-\frac{1}{2}x + 3y = 33$

- 22. Fishing Barge** A fishing barge leaves from a dock and moves upstream (against the current) at a rate of 3.8 miles per hour until it reaches its destination. After the people on the barge are done fishing, the barge moves the same distance downstream (with the current) at a rate of 8 miles per hour until it returns to the dock. The speed of the current remains constant. Use the models below to write and solve a system of equations to find the average speed of the barge in still water and the speed of the current.

Upstream: Speed of barge in still water – Speed of current = Speed of barge

Downstream: Speed of barge in still water + Speed of current = Speed of barge

- 23. Floor Sander Rental** A rental company charges a flat fee of x dollars for a floor sander rental plus y dollars per hour of the rental. One customer rents a floor sander for 4 hours and pays \$63. Another customer rents a floor sander for 6 hours and pays \$87.
- Find the flat fee and the cost per hour for the rental.
 - How much would it cost someone to rent a sander for 11 hours?