## Practice 6-3

## **Mixed Exercises**

Solve each system using elimination. Check your solution.

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

4. 
$$2x + 5y = -1$$
  
 $x + 2y = 0$ 

7. 
$$9x - 3y = 24$$
  
 $7x - 3y = 20$ 

10. 
$$4x - y = 6$$
  
 $3x + 2y = 21$ 

13. 
$$2x - 3y = -11$$
  
 $3x + 2y = 29$ 

16. 
$$-2x + 3y = -9$$
  
 $x + 3y = 3$ 

19. 
$$-2x + 3y = 25$$
  
 $-2x + 6y = 58$ 

22. 
$$-x + 8y = -32$$
  
 $3x - y = 27$ 

25. 
$$6x + 3y = 0$$
  
 $-3x + 3y = 9$ 

28. 
$$4x - 7y = -15$$
  
 $-4x - 3y = -15$ 

31. 
$$x + 8y = 28$$
  
 $-3x + 5y = 3$ 

$$34. -6x + 12y = 120$$
$$5x - 6y = -48$$

37. 
$$6x + 3y = 27$$
  
 $-4x + 7y = 27$ 

**40.** 
$$2x + 8y = -42$$
  
 $-x + 8y = -63$ 

43. 
$$8x - 2y = 58$$
  
 $6x - 2y = 40$ 

46. 
$$9x + 8y = 50$$
  
 $-3x + 5y = 14$ 

**49.** 
$$3x + 5y = 18$$
  
 $12x - 3y = 3$ 

2. 
$$3x + y = 20$$
  
 $x + y = 12$ 

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

$$8. \ 2x + 7y = 5 \\ 2x + 3y = 9$$

11. 
$$x + 2y = 9$$
  
 $3x + 2y = 7$ 

14. 
$$8x - 9y = 19$$
  
 $4x + y = -7$ 

17. 
$$4x - 3y = 11$$
  
 $3x - 5y = -11$ 

**20.** 
$$3x + 8y = 81$$
  
 $5x - 6y = -39$ 

23. 
$$2x + 7y = -7$$
  
 $5x + 7y = 14$ 

**26.** 
$$7x + 3y = 25$$
  
 $-2x - y = -8$ 

29. 
$$5x + 7y = -1$$
  
 $4x - 2y = 22$ 

32. 
$$8x - 6y = -122$$
  
 $-4x + 6y = 94$ 

35. 
$$-x + 3y = 5$$
  
 $-x - 3y = 1$ 

$$38. 6x - 8y = 40$$
$$5x + 8y = 48$$

**41.** 
$$5x + 9y = 112$$
  $3x - 2y = 8$ 

**44.** 
$$7x - 9y = -57$$
  
 $-7x + 10y = 68$ 

47. 
$$2x - 7y = 9$$
  
 $8x + 5y = 69$ 

50. 
$$2x + 6y = 54$$
  
 $2x - 6y = -18$ 

3. 
$$5x + 7y = 77$$
  
 $5x + 3y = 53$ 

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

9. 
$$x + y = 30$$
  
 $x - y = 6$ 

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

15. 
$$2x + 6y = 0$$
  
 $-2x - 5y = 0$ 

18. 
$$3x + 7y = 48$$
  
 $5x - 7y = -32$ 

21. 
$$8x + 13y = 179$$
  
 $2x - 13y = -69$ 

24. 
$$x + 6y = 48$$
  
 $-x + y = 8$ 

27. 
$$3x - 8y = 32$$
  
 $-x + 8y = -16$ 

30. 
$$6x - 3y = 69$$
  
 $7x - 3y = 76$ 

33. 
$$2x + 9y = 36$$
  
 $2x - y = 16$ 

$$36. \ 10x - 4y = 6$$
$$10x + 3y = 13$$

$$39. \ 3x + y = 27$$
$$-3x + 4y = -42$$

**42.** 
$$-3x + 2y = 0$$
  
 $-3x + 5y = 9$ 

45. 
$$9x + 3y = 2$$
  
 $-9x - y = 0$ 

**48.** 
$$9x + 7y = 157$$
  
 $12x + 7y = 193$ 

$$51. \ 3x - 9y = -51 \\ 3x - 7y = -37$$