Practice 6-2
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Mixed Exercises

Solve each system using substitution. Write *no solution* or i*nfinitely many solutions* where appropriate.

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

2. $y = x + 4$
$y = 3x$

3. $y = 3x - 10$
$y = 2x - 5$

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

5. $y = 5x + 5$
$y = 15x - 1$

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

7. $y = x - 7$
$2x + y = 8$

8. $y = 3x - 6$
$-3x + y = -6$

9. $x + 2y = 200$
$x = y + 50$

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

11. $y = 2x + 7$
$y = 5x + 4$

12. $3x - 2y = 0$
$x + y = -5$

13. $4x + 2y = 8$
$y = -2x + 4$

14. $6x - 3y = 6$
$y = 2x + 5$

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

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

17. $y = -\frac{2}{3}x + 4$
$2x + 3y = -6$

18. $2x + 3y = 8$
$\frac{3}{2}y = 4 - x$

19. $3x - y = 4$
$2x + y = 16$

20. $x + y = 0$
$x = y + 4$

21. $5x + 2y = 6$
$y = -\frac{5}{2}x + 1$

22. $2x + 5y = -6$
$4x + y = -12$

23. $4x + 3y = -3$
$2x + y = -1$

24. $y = -\frac{2}{3}x + 1$
$4x + 6y = 6$

25. $5x - 6y = 19$
$4x + 3y = 10$

26. $2x + y = 6.6$
$5x - 2y = 0.3$

27. $2x - 4y = 3.8$
$3x - y = 17.7$

28. $3x + 4y = 8$
$4.5x + 6y = 12$

29. $3x - 4y = -5$
$x = y + 2$

30. $y = \frac{1}{3}x + 10$
$x = 3y + 6$

31. $2x + 5y = 62$
$3x - y = 23.3$

32. $-5x + y = 6$
$2x - 3y = 60$

33. $x = \frac{3}{4}y - 6$
$y = \frac{4}{3}x + 8$

34. $5x + 6y = -76$
$x + 2y = -44$

35. $3x - 2y = 10$
$y = \frac{3}{2}x - 1$

36. $-3x + 2y = -6$
$-2x + y = 6$

37. $3x + 2y = 5$
$x + 4y = 0$

38. $2x + 5y = 16$
$x + 3y = 16$

39. $5x + 3y = 12$
$3y = -5x + 3$

40. $7x - 2y = 24$
$4x - y = 8$

41. $5x - y = -18$
$4x + 2y = 92$

42. $2x + y = 24$
$5x + 3y = 48$

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Practice 6-3
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Mixed Exercises

Solve each system using elimination. Check your solution.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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