

**Practice 6–1****Solving Systems by Graphing**

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 Solve by graphing. Check your solution.

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

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

3.  $y = 4x + 7$   
 $y = -3x$

4.  $y = x - 3$   
 $y = \frac{1}{7}x + 3$

5.  $y = -x - 3$   
 $y = -2x - 8$

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

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

8.  $y = \frac{5}{3}x - 4$   
 $y = 2x - 6$

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

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

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

12.  $x - y = 1$   
 $y = \frac{3}{4}x + 1$

13.  $y = x$   
 $x = 2y + 2$

14.  $3x - y = 9$   
 $y = x + 1$

15.  $2x + y = 0$   
 $y = 2x - 4$

16.  $y = 2x - 6$   
 $x + y = 9$

17.  $y = -x$   
 $y = 3x + 12$

18.  $y = 4x$   
 $y = -3x$

19.  $y = x$   
 $2x + y = \underline{3}$

20.  $3x + y = 6$   
 $2x - y = \frac{3}{2}$

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

22.  $x - y = -\frac{3}{2}$   
 $-2x + 5y = -4.5$

23.  $y = 2x - 20$   
 $y = -x + 34$

24.  $x + y = -10$   
 $2x + 3y = -30$

25.  $x + 2y = 2$   
 $3x + 4y = 22$

26.  $x = -2y - 3.5$   
 $-5x + 3y = -15$

Graph each system. Tell whether the system has *no solution* or *infinitely many solutions*.

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

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

29.  $y = -x + 2$   
 $3x + 3y = 12$

30.  $x = y + 4$   
 $y = x + 4$

31.  $3x - 6y = 12$   
 $2x - 4y = 8$

32.  $4x + y = 6$   
 $y = -4x - 1$

Without graphing, decide whether each system has *one solution*, *no solution*, or *infinitely many solutions*. Explain.

33.  $y = \frac{5}{6}x + 12$   
 $y = \frac{4}{3}x - 6$

34.  $2x + y = 6$   
 $3y = -6x + 9$

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

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