

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Absolute Value Equations and Inequalities

Solve the following.

1.  $|x| = 3$

2.  $|x| = 7$

3.  $|x + 2| = 8$

4.  $|x - 4| = 11$

5.  $|x + 7| = 13$

6.  $|x + 15| = 11$

7.  $|2x - 1| = 17$

8.  $|3x - 2| = 16$

9.  $|5x - 4| = 6$

10.  $|2 - 4x| = 8$

11.  $|3 - 12x| = 3$

12.  $|9x + 2| = 1$

13.  $|x| + 3 = 11$

14.  $|x| - 4 = 18$

15.  $|x + 5| - 3 = 6$

16.  $|x - 13| - 15 = 22$

17.  $|x + 14| - 5 = 8$

18.  $|x - 16| + 14 = 30$

19.  $|2x - 3| + 6 = 15$

20.  $|4x + 1| + 3 = 12$

21.  $|6x - 4| - 3 = 5$

22.  $2|x - 7| = 12$

23.  $5|2x - 1| = 25$

24.  $3|4x + 9| = 18$

25.  $6|4x - 3| - 2 = 16$

26.  $-2|5x - 1| + 3 = -1$

27.  $-3|2x - 9| - 7 = -10$

28.  $|x| = -5$

29.  $|x - 6| = -6$

30.  $|3x - 7| = -12$

31.  $|5x + 2| = -11$

32.  $|x + 4| = 0$

33.  $|x - 6| = 0$

34.  $|7x + 3| = 0$

35.  $|11x - 13| = 0$

36.  $|12 - 3x| = 0$

37.  $|x - 2| + 7 = 5$

38.  $|x + 8| - 13 = -10$

39.  $|2x - 5| - 16 = -11$

40.  $|11x + 2| - 5 = -12$

41.  $|4x - 3| - 8 = -15$

42.  $|7x - 3| - 8 = -8$

43.  $\left|\frac{x + 6}{5}\right| = 3$

44.  $\left|\frac{2x - 6}{3}\right| = 8$

45.  $\left|\frac{4 - x}{11}\right| = 5$

46.  $|4x - 3| = |3x - 11|$

47.  $|3x - 7| = |5x - 15|$

48.  $|7x + 4| = |5x - 16|$

49.  $|9x + 7| = |14x + 13|$

50.  $|2x + 3| = |5 - 2x|$

51.  $|x + 5| = |x - 3|$

52.  $|5x - 2| = |5x - 8|$

53.  $|8x - 7| = |8x - 7|$

54.  $|3x - 13| = |3x + 5|$