

Name

Section

Date

### **Absolute Value Equations**

Solve the equations. Graph the solutions, if possible.

1.  $|x| = 10$

2.  $|x - 1| = 4$

3.  $|3 - x| = -\frac{1}{2}$

4. How do you know that the equation  $|4x - 7| = -1$  has no solution?

Solve the equations. Check your solution.

5.  $|x - 2| + 5 = 9$

6.  $2|2x + 7| = 16$

7.  $-2|5x - 1| - 3 = -11$

8.  $|x + 8| = |2x + 1|$

9.  $\frac{1}{2}|x + 8| = |4x - 1|$

10.  $|3x - 2| = x$