

Name _____

Absolute Value Equations and Inequalities

Solve each absolute value equation.

1. $|x| = 13$

2. $|4 - 2x| = 22$

3. $|2x - 5| = 9$

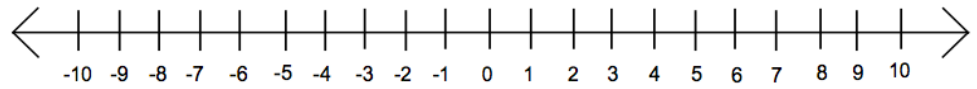
4. $|6x + 10| = 52$

5. $|2x - 1| - 4 = 1$

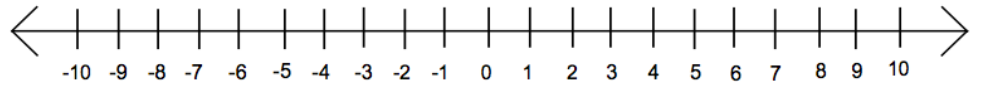
6. $5 + 7|6x - 10| = 61$

Solve the absolute value inequality. Graph the solution on the number line.

7. $|x + 2| > 5$



8. $|8x + 4| \leq 12$



Solve the absolute value inequality.

9. $|5 - 4x| + 2 < 6$

10. $3|2x + 5| + 4 \geq 13$

Absolute Value Equations and Inequalities Answers

Solve each absolute value equation.

1. $|x| = 13$

$$x = -13, 13$$

2. $|4 - 2x| = 22$

$$x = -9, 13$$

3. $|2x - 5| = 9$

$$x = -2, 7$$

4. $|6x + 10| = 52$

$$x = -10\frac{1}{3}, 7$$

5. $|2x - 1| - 4 = 1$

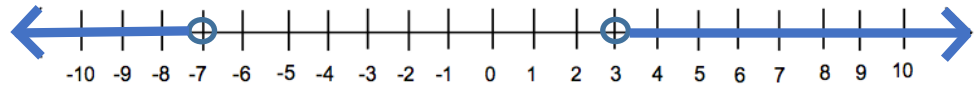
$$x = -2, 3$$

6. $5 + 7|6x - 10| = 61$

$$x = \frac{1}{3}, 3$$

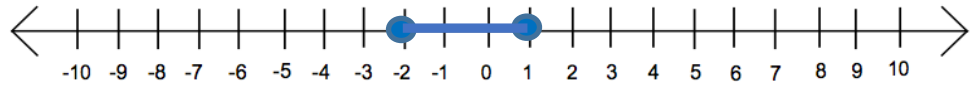
Solve the absolute value inequality. Graph the solution on the number line.

7. $|x + 2| > 5$



$x < -7$ or $x > 3$

8. $|8x + 4| \leq 12$



$-2 \leq x \leq 1$

Solve the absolute value inequality.

9. $|5 - 4x| + 2 < 6$

$\frac{1}{4} < x < \frac{9}{4}$

10. $3|2x + 5| + 4 \geq 13$

$x \leq -4$ or $x \geq -1$