

LESSON **Practice B**
2-8 Solving Absolute-Value Equations and Inequalities

Solve each equation.

1. $|2x + 1| = 7$

2. $|-7x| = 28$

3. $3|3x| - 7 = 2$

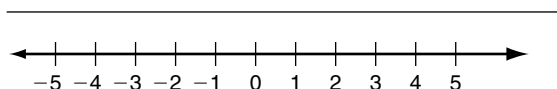
4. $|2x - 5| = 5$

5. $2|x + 1| = 14$

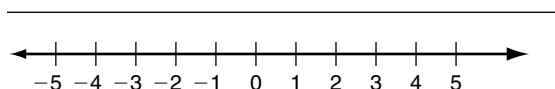
6. $|4 - x| + 2 = 9$

Solve each inequality or compound inequality. Then graph the solution.

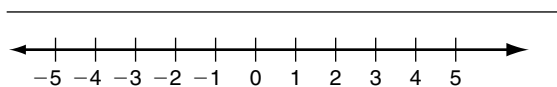
7. $-4x + 2 > -10$ and $5x - 12 < 8$



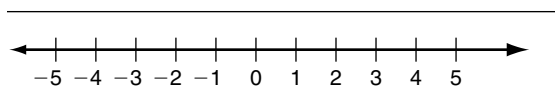
8. $3x - 4 \geq 8$ or $-x + 12 > 16$



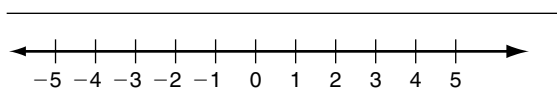
9. $|9x| \geq 18$



10. $|3x - 7| > 8$



11. $|0.3x| > 1$



12. $|7x| - 12 \leq 9$



Solve.

13. Any measurement is accurate within ± 0.5 of the measurement unit. For example, if you measure your pencil to the nearest inch, your measurement could be 0.5 inch too long or 0.5 inch too short. Write an absolute-value inequality that shows the maximum and minimum actual measure of a nail measured to be 4.4 centimeters to the nearest 0.1 centimeter.
