NAME _____ DATE _____ PERIOD _____

5-5 Study Guide and Intervention

Inequalities Involving Absolute Value

Inequalities Involving Absolute Value (<) When solving inequalities that involve absolute value, there are two cases to consider for inequalities involving < (or ≤).

If $|x| < n$, then $x > -n$ and $x < n$.

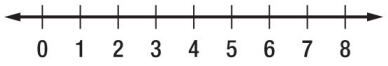
Remember that inequalities with *and* are related to intersections.

Example: Solve $|3a + 4| < 10$. Then graph the solution set.

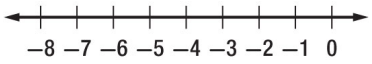
Exercises

Solve each inequality. Then graph the solution set.

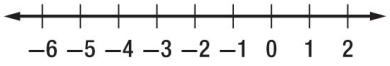
2. $|x - 4| < 4$



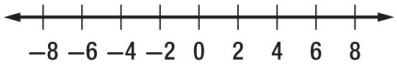
3. $|y + 3| \leq 2$



4. $|b + 2| \leq 3$



6. $|t + 2| \leq 4$



NAME _____ DATE _____ PERIOD _____

5-5 Study Guide and Intervention *(continued)*

Inequalities Involving Absolute Value

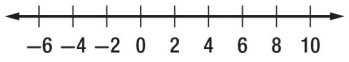
Solve Absolute Value Inequalities (>) When solving inequalities that involve absolute value, there are two cases to consider for inequalities involving > (or ≥).
Remember that inequalities with *or* are related to unions.

Example: Solve $|2b + 9| > 5$. Then graph the solution set.

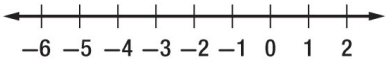
Exercises

Solve each inequality. Then graph the solution set.

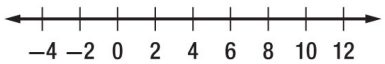
1. $|c - 2| > 6$



3. $|3f + 10| \geq 4$



8. $|3 - (x - 1)| \geq 8$



9. $|3r + 2| > -5$