NAME

Module 6 Solving Absolute Value Equations and Inequalities

Lesson 4 Solving Inequalities Using "Absolute Value is Greater Than"

guided notes

Lesson Objective

- Solve inequalities containing the absolute value expression "is greater than" or the absolute value expression "is greater than or equal to."

The absolute value of a number x is its **distance** from **zero** to x.

The inequality $|x| > 2$ is equivalent to the **disjunction** $x > 2$ or $x < -2$.

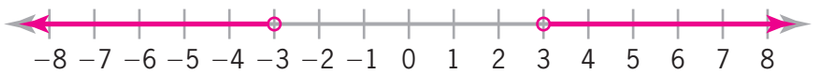
Solve and graph.

1. $|n| \geq 3$

   $n \geq 3$ or $n \leq -3$

2. $|9p| > 27$

   $p > 3$ or $p < -3$

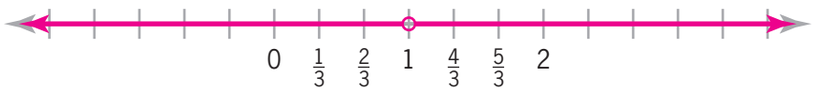


3. $-6 < |k + 4|$

   all real numbers

4. $|3d - 4| > 0$

   $d \neq \frac{4}{3}$



5. $10 + 2|y| > 6$

   $\Re$