

Absolute Value

- The **absolute value** is the distance a number is from 0 on a number line. It's symbol is two vertical bars " $|$ ".

Solving an Absolute Value Inequality

If u is an algebraic expression and c is a positive number,

- The solutions of $|u| < c$ are numbers that satisfy $-c < u < c$.
- The solutions of $|u| > c$ are the numbers that satisfy $u < -c$ or $u > c$.

These rules are valid if $<$ is replaced by \leq and $>$ is replaced by \geq .

" c " must be a positive number

Example 1: Solve each absolute value inequality.