Absolute Value

Definitions Matter

$$|x| = \begin{cases} x, \text{ if } x \geq 0 \\ -x, \text{ if } x < 0 \end{cases}$$

In algebra

Algorithm

1. Isolate the absolute value
2. Set the *expression* and the opposite of that *expression* on the inside of the absolute value signs equal to the number of the outside
3. Solve the resulting two equations

When working with all rules in math, work with binary operations. That is, the rules work for only two numbers at a time.