Absolute value of a real number is the ______________ from zero on a number line.
Distance is always positive.

\[ |x| = 2 \]

\[ |x| = -3 \quad |x| = 0 \]

Process:
1. Isolate the absolute value expression. \(|\text{expression}| = \text{number}\)
2. Determine the type of number the absolute value expression is equal to
   a. If it is equal to a NEGATIVE NUMBER the answer is NO SOLUTION.
   b. If it is equal to a POSITIVE NUMBER you will split into 2 equations (without
      absolute value bars)—(2 solutions)
      \[ \text{expression} = \text{number} \quad \text{or} \quad \text{expression} = -(\text{number}) \]
   c. If it is equal to ZERO rewrite the equation without absolute value bars and solve
      for the variable. (one solution)

Example 1: \[ |2x + 5| = 13 \]
Example 2: \(|3x - 4| - 3 = 11\)  \hspace{1cm} \text{Example 3: } 2|2x - 5| + 5 = 11

Example 4: \(|2x + 1| + 4 = 4\)  \hspace{1cm} \text{Example 5: } 2|2x - 5| + 9 = 9

Example 6: \(4|x - 1| + 7 = 3\)  \hspace{1cm} \text{Example 7: } 5 - |2x - 3| = 7