Inequalities and Absolute Values

When you compare two numbers $a$ and $b, a$ must be less than, equal to, or greater than $b$.
You can compare two whole numbers or positive decimals by comparing the digits of the numbers from left to right.
Find the first place in which the digits are different.

Example 1: Compare the two numbers.

$$
\begin{array}{cc}
2.9 \text { and } 2.2 & -4 \text { and }-1 \\
2.9>2.2 & -4<-1 \\
\begin{array}{cc}
\substack{-5-4-3-2-10 \\
\text { left } \\
\text { less }} &
\end{array} &
\end{array}
$$

The absolute value of a number is is distance from zero on a number line. The symbol $|a|$ represents the absolute value of $a$.

Example 2: Evaluate.

$$
\begin{array}{ccr}
|3| & |-2| & |-1.357| \\
3 & 2 & 1.357
\end{array}
$$

$$
\left|\frac{5}{4}\right| \frac{5}{4}
$$

Notes
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