

1.6 Comparing and Ordering Integers

Opposites: 2 numbers that are the same distance from zero on a # line in opposite directions.

Find the opposite of each.

Ex) $-5 \rightarrow 5$

Ex) $9 \rightarrow -9$

Integers:

Positive whole numbers, their opposites, & zero

Absolute Value:

Distance from zero on a # line.

(Always positive.)

Ex) $|9| \rightarrow 9$

Ex) $|-7| \rightarrow 7$

Comparing and Ordering Integers:

-Graph the values.

-The values increase from left to right.

-Use $<$, $>$, or $=$ to compare.

Ex) Compare -7 and 1.

$$-7 < 1$$

Ex) Compare -9 and -4.

$$-9 < -4$$

Ex) Compare $|-7|$ and $|7|$

$$\begin{array}{c} 7 \qquad 7 \\ \text{so } |-7| = |7| \end{array}$$

Ex) Compare $|-3|$ and $|2|$

$$\begin{array}{c} 3 > 2 \\ \text{so } |-3| > |2| \end{array}$$

Ex) Order from least to greatest: 3, -1, -4, and 2.

$$-4, -1, 2, 3$$

$$\begin{array}{l} \text{Ex) } |-5| + |2| \\ 5 + 2 = \textcircled{7} \end{array}$$

$$\begin{array}{l} \text{Ex) } |-5 + 2| \\ |-3| = \textcircled{3} \end{array}$$