

Absolute Value and Integers

Definition



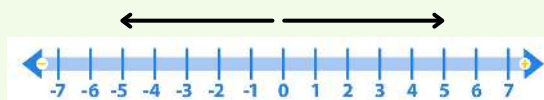
The absolute value of a number is its distance from '0' on a number line. We use two vertical lines to represent absolute value.

Think about it, If you tell a friend to walk 5 feet away from you, it will not matter, if he goes left or right, backwards or forwards or up or down. No matter which way he goes he will still be 5 feet away from you. That is what absolute value is telling us.

Example

The absolute value of 9 and -9 are equal to 9

$$|9| = 9 \quad \text{and} \quad |-9| = 9$$

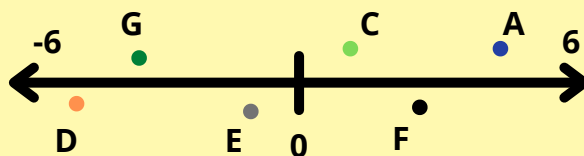


If you think about it, all we're doing is changing any number in the absolute value to a positive number.

Assignment

Write the coordinate of each point on the number line.

- 1 C. ----- 2 E. ----- 3 F. -----
 4 D. ----- 5 G. ----- 6 A. -----



Write the absolute value of each point.

- 7 C. ----- 8 E. ----- 9 F. -----
 10 D. ----- 11 G. ----- 12 A. -----

Write the each set of number on number line.

- 13 {6, -3, |2|, |4|} 14 {0, -2, |3|, |1|} 15 {1, -5, |0|, |7|}

Write < or > in each blank to make a true statement.

- 16 $| -12 |$ ----- 5 17 $| -1 |$ ----- -4 18 10 ----- $| -3 |$
 19 11 ----- $| -8 |$ 20 $| -10 |$ ----- 7 21 $| -15 |$ ----- -11