## Comparing and Ordering of Integers

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## Comparing Integers



An integer is positive if it is greater than zero and negative if it is less than zero. Zero is defined as neither negative nor positive.

Note that integers get smaller in value as you move to the left, and larger as you move to the right on thenumber line.

Numbers get smaller Numbers get larger


## Symbols Used for Comparing Integers

- The first integer is larger than the second integer; it is greater than the second integer. The symbol $>$ is used for greater than.
- The first integer is smaller than the second integer; it is less than the second integer. The symbol < is used to less than.
- The first integer is equal to second integer; it is said to be equal to the integer. The symbol $=$ is used to equal too.

Example: Compare integers -3, 7
Since -3 is to the left of 7 , so $-3<7$
Therefore, -3 is less than 7 .

## Ordering Integers

Ordering integers consists of two types such as

1. Ascending order
2. Descending order

## Ascending Order of Integers

Order the integers from least to greatest.

## Descending Order of Integers

Order the integers from greatest to least.
The further a number is to the left on a number line, the smaller it is in value. The further a number is to the right on a number line, the larger it is in value.

Example: Write the ascending order of the integers 6, -2, 8, -9.
Here, it is positive and negative integers.
To correctly order the integers from least to greatest, put the number farthest to the left first and the number farthest to the right last

- All positive integers are greater than negative integers
- With negative integers, as the digits get bigger, the overall number gets smaller.

Order the negative integers first,
Since, -2 is to the right of -9 , so $-2>-9$.
Order it like -9, -2 .

The number 6 is to the left of 8 so, $6<8$.
Hence, the ascending order is $-9,-2,6,8$.

## Try these questions now:

1. Compare integers $-5,-1$
(Answer: -1 > -5)
2. Write the given integers in ascending as well as descending order:

9, -3, 6, -7, -1, 8, 3 .
(Answer: Ascending order -7, -3, -1, 3, 6, 8, 9
Descending order: $\quad 9<8<6<3<-1<-3<-7)$

Now try it yourself! Should you still need any help,click here to schedule live online session with e Tutor!

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## Reference Links :

- http://en.wikipedia.org/wiki/Integer
- http://en.wikipedia.org/wiki/Number_line
- http://www.aaaknow.com/g65_cox1.htm

