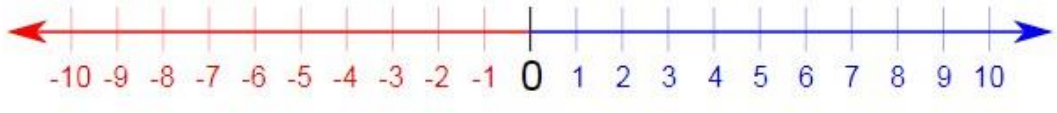
Cosmo School

Chapter-3 (Integers)
Class-six
Subject: Mathematics
Date 22/07/2020

Integers are like whole numbers, but they **also include negative numbers** ... but still no fractions allowed!



So, integers can be negative {−1, −2,−3, −4, ... }, positive {1, 2, 3, 4, ... }, or zero {0}

We can put that all together like this:

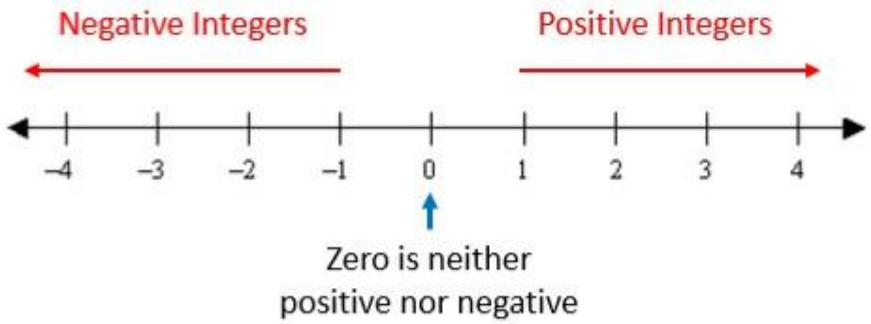
Integers = { ..., −4, −3, −2, −1, 0, 1, 2, 3, 4, ... }

Examples: −16, −3, 0, 1 and 198 are all integers.

(But numbers like ½, 1.1 and 3.5 are **not** integers)

Representation of Integers on Number Line:

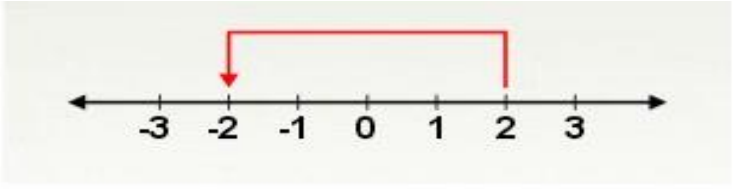
To represent the integers on a number line, first, we have to draw a line and mark a point zero on it.



Then mark all the **positive integers on the right side** with the same distance as 1, 2, 3… and the
entire **negative numbers on the left side** as -1, -2, -3

Additive Inverse:

If we add numbers like (-7) and 7 then we get the result as zero. So, these are called the **Additive inverse** of each other.



If we add (-2) + (2), then first we move 2 steps to the left of zero then we move two steps to the right of (-

2).so finally we reached to zero.

Hence, if we add the positive and negative of the same number then we get the zero

Example

What is the additive inverse of 4 and (-8)?

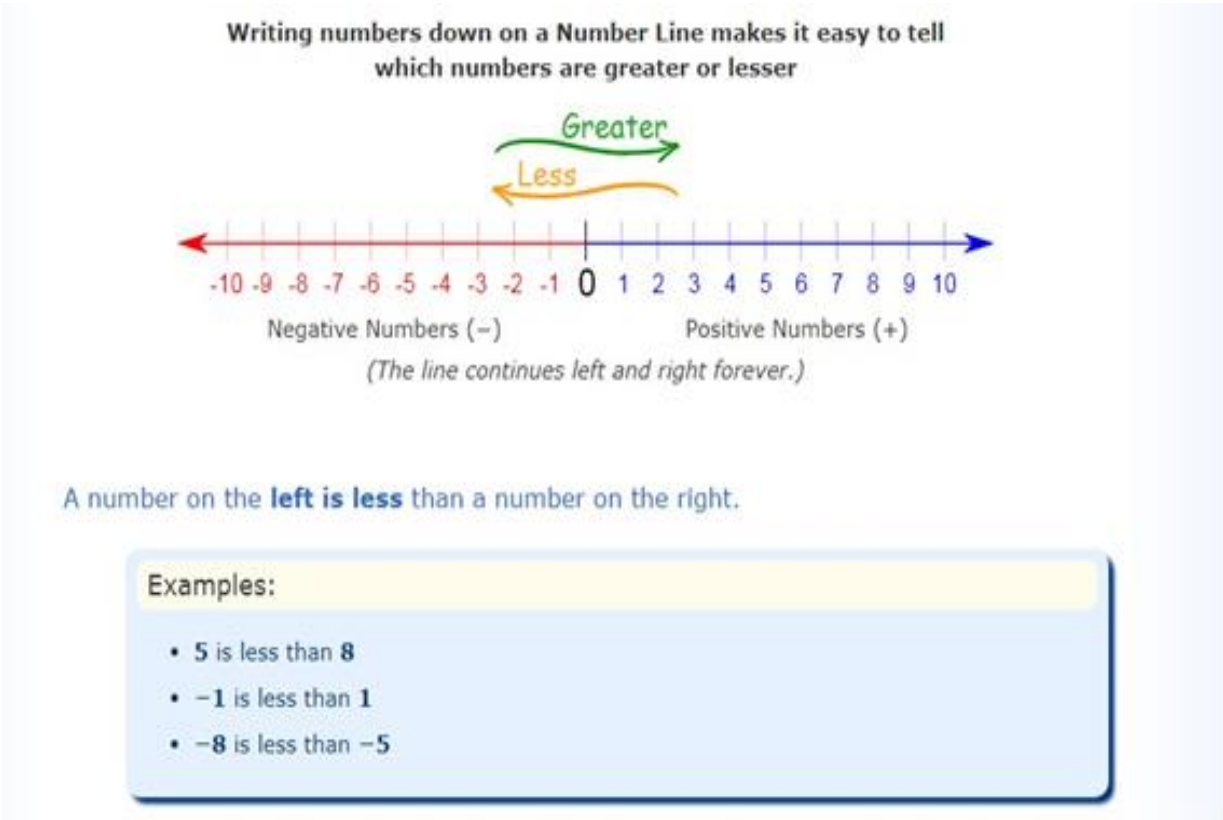
Solution:

The additive inverse of 4 is (-4).
The additive inverse of (-8) is 8

Types of Integer:

- **Negative Integers = { ..., −4, −3, −2, −1 }**
- **Positive Integers = { 1, 2, 3, 4, ... }**
- **Non-Negative Integers = { 0, 1, 2, 3, 4, ... } (includes zero, see?)**

Number line:



A number on the **right is greater** than a number on the left.

Examples:

- 8 is greater than 5
- 1 is greater than -1
- -5 is greater than -8