



# CLASS NOTES

## INTRODUCTION

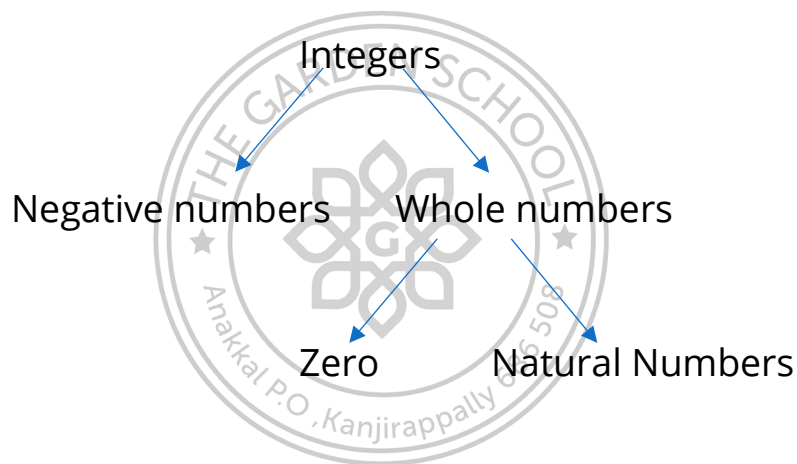
### Integers

The set of integers, usually represented by  $Z$ , contains zero, negative numbers and positive numbers. That is,

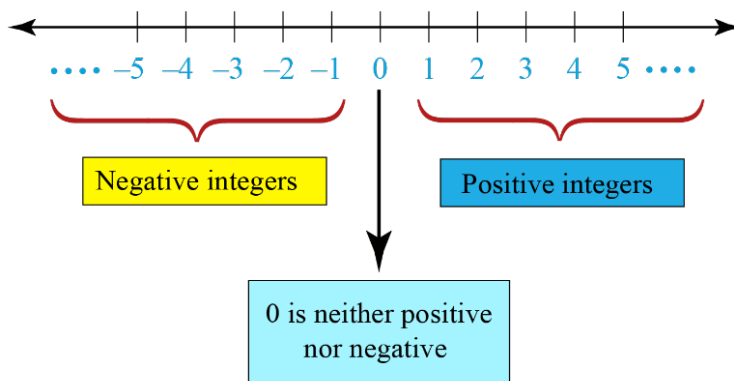
Integers = Whole numbers + negative numbers

$$Z = \{\dots -3, -2, -1, 0, 1, 2, 3\dots\}$$

Remember, integers do not include decimals or fractions.



### Integers on a Number Line





**Rules of Integers**

Adding Positive and Negative Integers			
Integer Sign	Operation	Answer Sign	Example
$\oplus + \oplus$	Add	$\oplus$	$2 + 5 = 7$
$\ominus + \ominus$	Add	$\ominus$	$-2 + (-5)$ $= -2 - 5$ $= -7$
$\oplus + \ominus$	Subtract	Larger Integer's Sign	$2 + (-5)$ $= 2 - 5$ $= -3$
$\ominus + \oplus$	Subtract	Larger Integer's Sign	$-2 + 5$ $= 3$
Subtracting Positive and Negative Integers			
Integer Sign	Operation	Answer Sign	Example
$\oplus - \oplus$	Subtract	Larger Integer's Sign	$2 - 5$ $= -3$
$\ominus - \ominus$	Subtract	Larger Integer's Sign	$-2 - (-5)$ $= -2 + 5$ $= 3$
$\oplus - \ominus$	Add	$\oplus$	$2 - (-5)$ $= 2 + 5$ $= 7$
$\ominus - \oplus$	Add	$\ominus$	$-2 - 5$ $= -7$