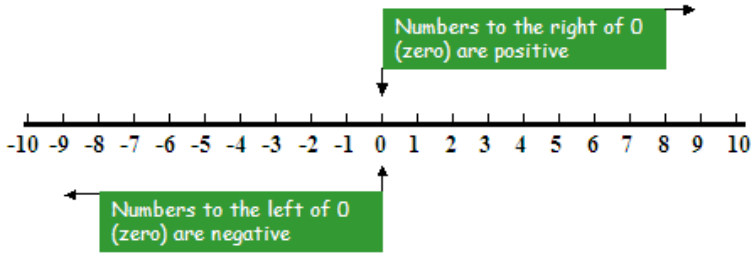
Integers – An Introduction

Created: Monday, 06 June 2011 10:27 | Published: Monday, 06 June 2011 10:27 | Written by Super User | Print

What are integers?

Integers are a set of numbers that include all the natural numbers (0, 1, 2, 3, 4, and so on) and their negatives.



The sign of an integer is either positive (+) or negative (-), except zero, which has no sign.

Positive Integers

Positive integers are all the whole numbers greater than zero: 1, 2, 3, 4, 5 ...These numbers are to the right of zero on the number line.

Negative integers

Negative integers are all the whole numbers less than zero: -1, -2, -3, -4, -5 ...These numbers are to the left of zero on the number line.

Zero

The integer zero is neutral. It is neither positive nor negative.

Example: Write the opposite of each integer given below :

a) -12	+12
b) +21	-21
c) -17	+17
d) +9	-9
e) -11	+11

Example: Write the number that best represents each statement.
a) It is 6 degrees warmer than yesterday.
+6
b) I lost $2:00 through a hole in my pocket.
-2
c) What is the absolute value of the number | -915 |?
915
d) What is the absolute value of the number | 712 |?
712

Try this now:

Write the number that best represents each statement
i) The price was reduced by $12.

ii) I improved my mark by 16.

iii) The building is 312 meters tall.

iv) My sister is 3 years younger than me.

v) We cut 9 inches off the timber plank.

vi) I have 2 arms.

vii) An elevator went down 10 floors. What integer describes the trip the elevator made?

viiii) 10 degrees above zero

ix) A loss of 16 dollars

x) A gain of 5 points

(Answers: 1. i) -12 (ii) 16 (iii) 312 (iv) -3 (v) -9 (vi) 2 (vii) -10) (viii) +10 (ix) -16 (x) +5)

Absolute Value

The absolute value of an integer is the numerical value without regard to whether the sign is negative or positive. On a number line it is the distance between the number and zero.
The absolute value of -15 is 15. The absolute value of +15 is 15.
The symbol for absolute value is to enclose the number between vertical bars such as |-20| = 20 and read "The absolute value of -20 equals 20".

Example: Evaluate if a = 4, b = 3 and c = -2.

|c| + b
= |-2| + 3
= 2 + 3 = 5

Try this now:

Evaluate if a = 4, b = 3 and c = -2.
|a| + |b| - 3
(Answer: 4)

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

About eAge Tutoring :

eAgeTutor.com is the premium online tutoring provider. Using materials developed by highly qualified educators and leading content developers, a team of top-notch software experts, and a group of passionate educators, eAgeTutor works to ensure the success and satisfaction of all of its students.

Contact us today to learn more about our tutoring programs and discuss how we can help make the dreams of the student in your life come true!

Reference Links :

- http://en.wikipedia.org/wiki/Integer
- http://en.wikipedia.org/wiki/Negative_number
- http://wiki.answers.com/Q/What_is_a_positive_integer
- http://en.wikipedia.org/wiki/Absolute_value

Category:ROOT