Integers: negative and non-negative numbers and absolute value essay sample

Integers are the first numbers that we learn to use. Along with their usefulness in everyday life, integers are building blocks from which all others numbers are derived. The integers are all the whole numbers including zero, all negative and all the positive numbers Basics of integers

* Whole numbers greater than zero are called positive integers. These numbers are to the right of zero on the number line. * Whole numbers less than zero are called negative integers. These numbers are to the left of zero on the number line. * The integer zero is neutral. It is neither positive nor negative. * The sign of an integer is either positive (+) or negative (-), except zero, which has no sign. * Two integers are opposites if they are each the same distance away from zero, but on opposite sides of the number line. One will have a positive sign, the other a negative sign. In the number line above, +3 and -3 are labelled as opposites. * We compare integers just as we compare whole numbers. For any two numbers graphed on a number line, the number to the right is the greater number and the number to the left is the smaller number * The absolute value of a number is the number's distance from 0 on the number line.

Addition and subtraction of integers

To Add Two Numbers With the Same Sign

· Step 1. Find the sum of their absolute values.

· Step 2. Use their common sign as the sign of the sum.

E. g. 12 + 3 = 15

To Add Two Numbers with Different Signs

1. Find the absolute value of each integer.

2. Subtract the smaller number from the larger number you get in Step 1. 3.
The result from Step 2 takes the sign of the integer with the greater absolute
Value.

E. g. -3 + 5 = 5 – 3 = 2

For subtractions

The only thing you need to remember is you can rearrange a subtraction to
an addition (only in most cases) Multiplying and dividing integers

Multiplying Integers:

The product of two numbers having different (opposite) signs is a negative
number E. g. 4 x -3= -12

The product of two numbers having the same sign is a positive number. E. g.
4 x 3 = 12

Dividing integers:

The quotient of two integers having the same sign is positive. E. g. -24 /-3 =
8

The quotient of two integers having opposite (different) signs is negative. E.
g. -24/3 = -8