**CODEWARS ASSIGNMENT:**

Q:1)**Write a program that finds the summation of every number from 1 to num. The number will always be a positive integer greater than 0.**

**For example:**

**summation(2) -> 3**

**1 + 2**

**summation(8) -> 36**

**1 + 2 + 3 + 4 + 5 + 6 + 7 + 8**

Ans:1)public class GrassHopper {

public static int summation(int n) {

int sum=0;

for(int index=1;index<=n;index++)

{

sum=sum+index;

}

return sum;

}

}

Q:2)**Your task is to create a function that does four basic mathematical operations.**

The function should take three arguments - operation(string/char), value1(number), value2(number).

The function should return result of numbers after applying the chosen operation.

### **Examples(Operator, value1, value2) --> output**

('+', 4, 7) --> 11

('-', 15, 18) --> -3

('\*', 5, 5) --> 25

('/', 49, 7) --> 7

**Ans:2)**public class BasicOperations

{

public static Integer basicMath(String op, int v1, int v2)

{

if(op=="+")

{

return v1+v2;

}

else if(op=="-")

{

return v1-v2;

}

else if(op=="\*")

{

return v1 \* v2;

}

else if(op =="/")

{

return v1 / v2;

}

return 0;

}

}

**Q:3**)**Write a function that takes an array of numbers and returns the sum of the numbers. The numbers can be negative or non-integer. If the array does not contain any numbers then you should return 0.**

### **Examples**

Input: [1, 5.2, 4, 0, -1]

Output: 9.2

Input: []

Output: 0

Input: [-2.398]

Output: -2.398

**Ans:3)**public class SumArray {

public static double sum(double[] numbers)

{

if(numbers.length!=0)

{

double sum1=0.0;

for(int index=0;index<numbers.length;index++)

{

sum1=sum1+numbers[index];

}

return sum1;

}

else

{

System.out.println(0);

}

return 0.0;

}

}

Q:4)**Implement a function which convert the given boolean value into its string representation.**

Note: Only valid inputs will be given.

**Ans:4)**

public class BooleanToString

{

public static String convert(boolean b)

{

String str=new Boolean(b).toString();

if(b==true)

{

return "true";

}

else

{

return "false";

}

}

}

**Q:5)In this simple assignment you are given a number and have to make it negative. But maybe the number is already negative?**

### **Examples**

**Kata.makeNegative(1); // return -1**

**Kata.makeNegative(-5); // return -5**

**Kata.makeNegative(0); // return**

**Ans:5)**public class Kata {

public static int makeNegative(final int x) {

if(x<0)

{

return x;

}

else if(x>0)

{

return -x;

}

else

{

return 0;

}

}

**Q:6)Write a function which calculates the average of the numbers in a given list.**

**Note: Empty arrays should return 0.**

**Ans:6)**public class Kata{

public static double find\_average(int[] array)

{

int sum=0;

if(array.length!=0)

{

for(int index=0;index<array.length;index++)

{

sum=sum+array[index];

}

double average=sum/array.length;

return average;

}

else

{

return 0;

}

}

}