Quiz 1

Algorithms

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Part 1: Now that you learned how to add al numbers from 1 to 100, you are required to do the following tasks

1. *Create an algorithm to add all odd numbers from 1 to 100*

//Input  
var sum = 0  
var i = 1

//Process  
if i < 100  
add i by 2  
add i to sum

//Output  
Print sum

**Check**

1+3+5…+95+97+99= 2500

1. *Create an algorithm to add even numbers from 1 to 100*

//Input  
var sum = 0  
var i = 0

//Process  
if i <= 100  
add i by 2  
add i to sum

//Output  
Print sum

**Check**

0+2+4…+96+98+100=2550

1. *Create an algorithm to add all numbers between 2 arbitrary numbers.* ***0 and 2345***

//Input

var sum = 0

var i = 0

//Process

if i <= 2345

increment i (i++)

add i to sum

//Output

Print sum

**Check**

1+2+3…+2343+2344+2345=2750685

Part 2: Carl Friedrich Gauss was a German mathematician who invented a fast and efficient method for adding numbers between 1 and 100. You are required to read about his method and create an algorithm to add numbers between 1 and 100 using Gauss method.

//Input   
var sum = 0  
var i = 1  
var n = 100

//Process  
sum = (n\*(n+i))/2

//Output  
Print sum

**Check**

(100\*(100+1))/2 = 5050