

**Lab III**  
22. Oct. 2014

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**Problem 1**

Write a program that reads two integers  $x$  and  $y$  from the user and prints the sum of all numbers between  $x$  and  $y$  (inclusive).

Assume that  $x$  will always be less than  $y$ .

**Sample Input**

2 10

**Sample Output**

54

**Problem 2**

Write a program that keeps reading integers until  $-1$  is entered. Your program should then print the total number of even and odd numbers entered by the user.

Assume that all input will be positive.

**Sample Input**

5 2 7 9 1 6 4 -1

**Sample Output**

4 odd  
3 even

**Problem 3:**

Write a program that reads two integers  $x$  and  $y$  from the user then prints the value of  $x^y$ .

Note that you should not use the `Math.pow` function to compute the result. You can only use it to verify that your answer is correct.

**Sample Input**

5 3

**Sample Output**

125

**Problem 4:**

Write a program that reads two integers  $x$  and  $y$  from the user. If  $x$  is less than  $y$ , your program should print their sum and determine if it is even or odd. Otherwise, if  $x$  is greater than or equal to  $y$ , your program should print their product and also determine if it is even or odd.

**Sample Input**

5 9

**Sample Output**

14 even

**Problem 5:**

Write a program that reads a string then prints the number of vowels and non-vowels found in it.

Assume that the input string will not contain spaces and will always be in lower-case.

**Sample Input**

programming

**Sample Output**3 vowels  
8 non-vowels