Programming Assignment-1: Digits

**Due on 2020-02-27, 23:59 IST**

You are given a number **A** which contains only digits 0's and 1's. Your task is to make all digits same by just flipping one digit (i.e. 0 to 1 or 1 to 0 ) only. If it is possible to make all the  digits same by just flipping one digit then print '**YES**' else print '**NO**'.  
  
**Input Format:**  
  
The first line contains a number made up of 0's and 1's.  
  
**Output Format:**  
  
Print 'YES' or 'NO' accordingly without quotes.  
  
Example:  
  
Input:  
  
101  
  
Output:  
YES  
  
Explanation:   
If you flip the middle digit from 0 to 1 then all the digits will become same. Hence output is YES.

Given an integer number **n**, you have to print the factorial of this number. To know about factorial please click on this [link](https://www.mathsisfun.com/numbers/factorial.html).  
  
**Input Format:**  
  
A number **n**.  
  
Output Format:  
  
Print the factorial of **n**.  
  
**Example:**  
Input:  
4  
  
Output:  
24

Programming Assignment-3: Matrix

**Due on 2020-02-27, 23:59 IST**

You are provided with the number of rows (R) and columns (C). Your task is to generate the matrix having R rows and C columns such that all the numbers are in increasing order starting from 1 in row wise manner.  
  
Input Format:  
The first line contain two numbers R and C separated by a space.  
  
Output Format:  
Print the elements of the matrix with each row in a new line and elements of each row are separated by a space.  
  
NOTE: There should not be any space after the last element of each row and no new line after the last row.  
  
Example:  
  
Input:  
3 3  
  
Output:  
1 2 3  
4 5 6  
7 8 9  
  
Explanation:   
Starting from the first row, the numbers are present in the increasing order. Since it's a 3X3 matrix, the numbers are from 1 to 9.