# Sherlock and the Valid String

For example, if  s=abc, it is a valid string because frequencies are (a:1,b:1,c:1). So is s=abcc  because we can remove one C and have 1  of each character in the remaining string. If  however s=abccc, the string is not valid as we can only remove  occurrence of . That would leave character frequencies of .

**Function Description**

Complete the isValid function in the editor below. It should return either the string YES or the string NO.

isValid has the following parameter(s):

* s: a string

**Input Format**

A single string .

**Constraints**

* Each character

**Output Format**

Print YES if string  is valid, otherwise, print NO.

**Sample Input 0**

aabbcd

**Sample Output 0**

NO

**Explanation 0**

Given , we would need to remove two characters, both c and d  aabb or a and b  abcd, to make it valid. We are limited to removing only one character, so  is invalid.

**Sample Input 1**

aabbccddeefghi

**Sample Output 1**

NO

**Explanation 1**

Frequency counts for the letters are as follows:

{'a': 2, 'b': 2, 'c': 2, 'd': 2, 'e': 2, 'f': 1, 'g': 1, 'h': 1, 'i': 1}

There are two ways to make the valid string:

* Remove  characters with a frequency of : .
* Remove  characters of frequency : .

Neither of these is an option.

**Sample Input 2**

abcdefghhgfedecba

**Sample Output 2**

YES

**Explanation 2**

All characters occur twice except for  which occurs  times. We can delete one instance of  to have a valid string.

# Highest Value Palindrome

Palindromes are strings that read the same from the left or right, for example *madam* or *0110*.

You will be given a string representation of a number and a maximum number of changes you can make. Alter the string, one digit at a time, to create the string representation of the largest number possible given the limit to the number of changes. The length of the string may not be altered, so you must consider 0 's left of all higher digits in your tests. For example 0110  is valid, 0011 is not.

Given a string representing the starting number and a maximum number of changes allowed, create the largest palindromic string of digits possible or the string -1 if it's impossible to create a palindrome under the contstraints.

**Function Description**

Complete the *highestValuePalindrome* function in the editor below. It should return a string representing the largest value palindrome achievable, or -1.

highestValuePalindrome has the following parameter(s):

* *s*: a string representation of an integer
* *n*: an integer that represents the length of the integer string
* *k*: an integer that represents the maximum number of changes allowed

**Input Format**

The first line contains two space-separated integers,  and , the number of digits in the number and the maximum number of changes allowed.  
The second line contains an -digit string of numbers.

**Constraints**

* Each character  in the number is an integer where .

**Output Format**

Print a single line with the largest number that can be made by changing no more than  digits. If this is not possible, print -1.

**Sample Input 0**

4 1

3943

**Sample Output 0**

3993

**Sample Input 1**

6 3

092282

**Sample Output 1**

992299

**Sample Input 2**

4 1

0011

**Sample Output 2**

-1

**Explanation**