

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 is not possible to create a palindrome under the constraints.

Example

$s = \text{'1231'}$

$k = 3$

Make 3 replacements to get **'9339'**.

$s = \text{'12321'}$

$k = 1$

Make 1 replacement to get **'12921'**.

Function Description

Complete the *highestValuePalindrome* function in the editor below.

highestValuePalindrome has the following parameter(s):

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

Returns

- *string*: a string representation of the highest value achievable or **-1**

Input Format

The first line contains two space-separated integers, n and k , the number of digits in the number and the maximum number of changes allowed.

The second line contains an n -digit string of numbers.

Constraints

- $0 < n \leq 10^5$

- $0 \leq k \leq 10^5$

- Each character i in the number is an integer where $0 \leq i \leq 9$.

Output Format

Sample Input 0

```
STDIN      Function
-----
4 1        n = 4, k = 1
3943       s = '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

Sample 0

There are two ways to make **3943** a palindrome by changing no more than $k = 1$ digits:

1. **3943** \rightarrow **3443**

2. **3943** \rightarrow **3993**

3993 $>$ **3443**