

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**