Richie Rich

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Problem Submissions Leaderboard Discussions Editorial

Sandy likes palindromes. A palindrome is a word, phrase, number, or other sequence of characters which reads the same backward as it does forward. For example, *madam* is a palindrome.

On her 7^{th} birthday, Sandy's uncle, Richie Rich, offered her an n-digit check which she refused because the number was not a palindrome. Richie then challenged Sandy to make the number palindromic by changing no more than k digits. Sandy can only change 1 digit at a time, and cannot add digits to (or remove digits from) the number.

Given k and an n-digit number, help Sandy determine the largest possible number she can make by changing $\leq k$ digits.

Note: Treat the integers as numeric strings. Leading zeros are permitted and can't be ignored (So 0011 is not a palindrome, 0110 is a valid palindrome). A digit *can* be modified more than once.

Input Format

The first line contains two space-separated integers, n (the number of digits in the number) and k (the maximum number of digits that can be altered), respectively.
The second line contains an n-digit string of numbers that Sandy must attempt to make palindromic.

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

Print a single line with the largest number that can be made by changing no more than k 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

Sample 0

There are two ways to make 3943 a palindrome by changing exactly $k = 1$ digits:

1. $3943 \rightarrow 3443$
2. $3943 \rightarrow 3993$

$3993 > 3443$, so we print 3993.

Submissions: 8695
Max Score: 30
Difficulty: Medium

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Current Buffer (saved locally, editable) C++

```
#include <map>
#include <set>
#include <list>
#include <cmath>
#include <ctime>
#include <deque>
#include <queue>
#include <stack>
#include <string>
#include <bitset>
#include <cstdio>
#include <limits>
#include <vector>
#include <climits>
#include <cstring>
#include <cstdlib>
#include <fstream>
#include <numeric>
#include <sstream>
#include <iostream>
#include <algorithm>
#include <unordered_map>

using namespace std;


int main(){
    int n;
    int k;
    cin >> n >> k;
    string number;
```

```
    cin >> number;
    return 0;
}

```

Line: 1 Col: 1

Upload Code as File Test against custom input Run Code Submit Code