

C. Vasya and String

time limit per test: 1 second
memory limit per test: 256 megabytes

High school student Vasya got a string of length n as a birthday present. This string consists of letters 'a' and 'b' only. Vasya denotes *beauty* of the string as the maximum length of a **substring** (consecutive subsequence) consisting of equal letters.

Vasya can change no more than k characters of the original string. What is the maximum beauty of the string he can achieve?

Input

The first line of the input contains two integers n and k ($1 \leq n \leq 100\,000$, $0 \leq k \leq n$) — the length of the string and the maximum number of characters to change.

The second line contains the string, consisting of letters 'a' and 'b' only.

Output

Print the only integer — the maximum beauty of the string Vasya can achieve by changing no more than k characters.

Examples

| | |
|-------------|------|
| input | Copy |
| 4 2 abba | |
| output | Copy |
| 4 | |

| | |
|-----------------|------|
| input | Copy |
| 8 1 aabaabaa | |
| output | Copy |
| 5 | |

Note

In the first sample, Vasya can obtain both strings "aaaa" and "bbbb".

In the second sample, the optimal answer is obtained with the string "aaaaabaa" or with the string "aabaaaaa".

Codeforces Round 354 (Div. 2)

Finished

Practice

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest

→ Submit?

Language: GNU G++20 13.2 (64 bit, win

Choose file: Choose File No file chosen

Submit

→ Last submissions

| Submission | Time | Verdict |
|---------------------------|-------------------|------------------------|
| 309647541 | Mar/09/2025 18:55 | Accepted |
| 309647294 | Mar/09/2025 18:52 | Accepted |
| 309646912 | Mar/09/2025 18:49 | Wrong answer on test 9 |

→ Problem tags

binary search dp strings two pointers

*1500

No tag edit access

→ Contest materials

Announcement (en)

Editorial (en)