CODEFORCES
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O. 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 ($1 \le n \le 100\,000$, $0 \le k \le n$) — 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".

→ Group Contests ⌄

- Juniors Phase 1 Practice #5 (Bitmask, Bitset, Bits)
- Juniors Phase 1 Practice #4 (Binary search , Two pointers)
- Juniors Phase 1 Practice #3 (STL 2)
- Juniors Phase 1 Practice #2 (STL 1)
- Juniors Phase 1 Practice #1 (Prefix sum , Frequency Array)

Juniors Phase 1 Practice #4 (Binary search , Two pointers)

Finished

Practice

⭐

→ About Time Scaling ⌄

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the link.

→ 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]

→ Submit?

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

Choose file: [Choose File] No file chosen

[Submit]

→ Last submissions

Submission	Time	Verdict
312329653	Mar/25/2025 16:56	Accepted