

G. Not Very Rude Substring

time limit per test: 2 seconds
memory limit per test: 256 megabytes

You are given a string s , consisting of n lowercase English letters.

Rudeness of a string t of length k is the number of pairs of integers (i, j) , where $1 \leq i < j \leq k$, for which $t_i = \text{«a»}$ and $t_j = \text{«b»}$. In other words, the rudeness of a string is the number of ways to delete all but two of its characters, so that the string «ab» remains.

Your task is to find a substring $s_l s_{l+1} \dots s_r$, the rudeness of which does not exceed c , of maximum length.

Input

The first line of the input contains two integers n and c ($1 \leq n \leq 10^6, 0 \leq c \leq 10^{18}$).

The second line contains the string s . The string consists of n lowercase English letters.

Output

Print a single integer, the maximum length of a substring of a string that has rudeness at most c .

Examples

input	Copy
3 1 aab	
output	Copy
2	

input	Copy
6 2 aabcbb	
output	Copy
4	

→ Submit?

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

Choose file: Choose File No file chosen

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