

K Palindromes

Time Limit: 1 Second
Memory Limit: 256 MB

A k palindrome is a string obtained by inserting k arbitrary characters to the middle of a palindrome. More formally, s is a k palindrome if $|s| > k$, $|s| - k$ is even, and $[s_{1, \frac{|s|-k}{2}}; s_{\frac{|s|+k}{2}, |s|}]$ is a palindrome (where $[a; b]$ denotes the concatenation of strings a and b).

Given a string s and a nonnegative integer k , find the number of k palindrome substrings in s .

Input

The first line contains two integers n and k ($0 \leq k < n \leq 10^5$) - length of the string and the integer k .

The second line contains a single string s with length n . It is guaranteed that s only contains lowercase letters.

Output

Output a single integer denoting the number of k palindrome substrings of s .

Sample Inputs

6 2
abcabc

Sample Outputs

3
