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#####C/C++/Rust/Pascal 5#####10#
#####C/C++/Rust/Pascal 1024 M#####2048 M
64bit IO Format: %lld
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Pigeon aspires to become a string master. Every day he trains extra-hard on string problems.

Today he is solving a problem that goes like this:

Given a string  $S$  of length  $n$ . You need to perform the following operation exactly  $k$  times:

- For the  $i$ -th operation ( $1 \leq i \leq k$ ) Choose a substring of  $S$  as  $S_i$ .  $S[l_i, r_i]$  is substring of  $S$ . (i.e., the contiguous substring of  $S$  starting at position  $l_i$  and ending at position  $r_i$ , where  $1 \leq l_i \leq r_i \leq n$ ). In addition, the empty string is also a substring of  $S$ .
- Concatenate the chosen substrings  $S_i (1 \leq i \leq k)$  in order to form a new string  $S_1 + S_2 + \dots + S_k$ .

Let  $X$  be the number of distinct strings that can be formed by concatenating  $k$  substrings in this way. Output  $X \bmod 998244353$ .

#####:

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The first line contains two integers  $n$  and  $k$  ( $1 \leq n \leq 5 \times 10^5, 1 \leq k \leq 10^9$ ).

The second line contains a string  $S$  of length  $n$ , only consisting of both uppercase and lowercase English letters.

Note that uppercase and lowercase letters are treated as distinct.
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#####:

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Output a single integer, the number of distinct strings that can be formed by concatenating  $k$  substrings
(selected in order from the 1st to the  $k$ -th operation) modulo 998244353.
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