Problem H. K-th String

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	256 mebibytes

Alice has $n \leq 26$ cards, and each card is labeled with one of the first n lowercase English letters. For example, if $n = 3$, Alice has three cards that are labeled "`a`", "`b`", and "`c`". Alice constructed a string t by permuting these cards. Furthermore, she considered all non-empty substrings of t and sorted them lexicographically. It turned out that the k-th string in this sorted list of substrings was s. How many t's are possible?

For example, if $n = 3$ and $t =$ `cab`, the sorted list is `a`, `ab`, `b`, `c`, `ca`, `cab`, and the third string in the sorted list is `b`. When $k = 3$ and $s =$ `b`, there are two possibilites for t: `cab` and `bac`.

Compute the number of possible t's that are consistent with the given information, modulo $10^9 + 7$. Note that Alice may have made mistakes, in which case the number of possible t's is zero.

Input

On the first line, you are given two space-separated integers n and k. On the next line, you are given the string s ($1 \leq n \leq 26$, $1 \leq k \leq n(n+1)/2$). The characters in s are pairwise distinct; s consists of the first n lowercase English letters.

Output

Print the answer on a single line.

Examples

standard input	standard output
2 2 b	1
3 3 b	2