Problem H – Heritage of Acatlan

In the Library of Acatlán, an ancient spell is written as a long string S of length N. The spell also contains a secret incantation T, a string of length M.

The power of the spell is measured by the number of subsequences of S that are equal to T.

The oracle of Acatlán allows you to perform at most one modification on S: you may change a single character in S to any **other** lowercase English letter.

Your task is to count the power of all the possible spells with at most one modification.

Definition: A string U is called a subsequence of a string V if U can be obtained from V by deleting zero or more characters without changing the relative order of the remaining characters.

Input

The first line contains two integers N and M ($1 \leq N \leq 10^5$, $1 \leq M \leq 60$) — the lengths of the strings S and T.

The second line contains the string S.

The third line contains the string T.

Both strings consist of lowercase English letters.

Output

Print a single integer, the accumulated power of all possible spells with at most one modification number of subsequences of S that contain T after at most one modification, because this number can be very big, print it modulo $10^9 + 7$

Sample input 1	**Sample output 1**
3 2 cac ac	27

Sample input 2	**Sample output 2**
3 3 abc abc	1

Note

For the first sample case, if we modify any of the last two characters, we won't have any subsequence equal to T. In addition, the only modification of the first character that makes S to have two subsequences equal to T is with the letter '`a`'. The other modifications or no modification just keep the number of subsequences in 1, so we have $2 \times 1 + 1 \times 25 = 27$.

For the second sample case, the only scenario in which the string S contains a subsequence equal to T is when we don't apply modifications at all. Any modification would imply that S won't contain T as a subsequence. Therefore, the answer is 1.