

5542. Number of Ways to Form a Target String Given a Dictionary

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You are given a list of strings of the **same length** words and a string target .

Your task is to form target using the given words under the following rules:

- target should be formed from left to right.
- To form the ith character (**0-indexed**) of target , you can choose the kth character of the jth string in words if target[i] = words[j][k] .
- Once you use the kth character of the jth string of words , you **can no longer** use the xth character of any string in words where x <= k . In other words, all characters to the left of or at index k become unusable for every string.
- Repeat the process until you form the string target .

User Accepted:	14
User Tried:	26
Total Accepted:	14
Total Submissions:	32
Difficulty:	Hard

Notice that you can use **multiple characters** from the **same string** in words provided the conditions above are met.

Return the number of ways to form target from words . Since the answer may be too large, return it modulo 10⁹ + 7 .

Example 1:

Input: words = ["acca","bbbb","caca"], target = "aba"

Output: 6

Explanation: There are 6 ways to form target.
"aba" -> index 0 ("a⁰cca"), index 1 ("bb¹bb"), index 3 ("cac³a")
"aba" -> index 0 ("a¹cca"), index 2 ("bb²bb"), index 3 ("cac³a")
"aba" -> index 0 ("a²cca"), index 1 ("bb¹bb"), index 3 ("cac³a")
"aba" -> index 0 ("a³cca"), index 2 ("bb²bb"), index 3 ("acc³a")
"aba" -> index 1 ("ca¹ca"), index 2 ("bb²bb"), index 3 ("acc³a")
"aba" -> index 1 ("ca²ca"), index 2 ("bb²bb"), index 3 ("cac³a")

Example 2:

Input: words = ["abba","baab"], target = "bab"

Output: 4

Explanation: There are 4 ways to form target.
"bab" -> index 0 ("b⁰aab"), index 1 ("ba¹ab"), index 2 ("ab²ba")
"bab" -> index 0 ("b¹aab"), index 1 ("ba¹ab"), index 3 ("ba³ab")
"bab" -> index 0 ("ba⁰ab"), index 2 ("ba²ab"), index 3 ("ba³ab")
"bab" -> index 1 ("ab¹ba"), index 2 ("ba²ab"), index 3 ("ba³ab")

Example 3:

Input: words = ["abcd"], target = "abcd"

Output: 1

Example 4:

Input: words = ["abab","baba","abba","baab"], target = "abba"

Output: 16

Constraints:

- 1 <= words.length <= 1000
- 1 <= words[i].length <= 1000
- All strings in words have the same length.
- 1 <= target.length <= 1000
- words[i] and target contain only lowercase English letters.

Java



```
1 class Solution {  
2     public int numWays(String[] words, String target) {  
3  
4     }  
5 }
```

☐ Custom Testcase☒ Use Example Testcases

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