

1513. Find All Good Strings

Difficulty : Hard

<https://leetcode.com/problems/find-all-good-strings>

Given the strings `s1` and `s2` of size `n` and the string `evil`, return *the number of **good** strings*.

A **good** string has size `n`, it is alphabetically greater than or equal to `s1`, it is alphabetically smaller than or equal to `s2`, and it does not contain the string `evil` as a substring. Since the answer can be a huge number, return this **modulo** $10^9 + 7$.

Example 1:

Input: `n = 2, s1 = "aa", s2 = "da", evil = "b"`

Output: `51`

Explanation: There are 25 good strings starting with 'a': "aa","ac","ad",...,"az". Then there are 25 good strings starting with 'c': "ca","cc","cd",...,"cz" and finally there is one good string starting with 'd': "da".

Example 2:

Input: `n = 8, s1 = "leetcode", s2 = "leetgoes", evil = "leet"`

Output: `0`

Explanation: All strings greater than or equal to `s1` and smaller than or equal to `s2` start with the prefix "leet", therefore, there is not any good string.

Example 3:

Input: `n = 2, s1 = "gx", s2 = "gz", evil = "x"`

Output: `2`

Constraints:

- `s1.length == n`
- `s2.length == n`
- `s1 <= s2`
- `1 <= n <= 500`
- `1 <= evil.length <= 50`
- All strings consist of lowercase English letters.