

Prefix Free Code

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open.kattis.com/problems/prefixfreecode

- N strings of lower case letters, where no string is a prefix of another string
- Choose K of strings and concatenate them
- Sort composite strings you get in previous steps in alphabetical order
- Given a test composite string, find its position (first in the list is at position 1), modulo 10^9+7

Solution

1. Read strings & construct prefix tree
2. Sort strings
3. Read test composite string character by character & look up in prefix tree
4. If match, count possible composite strings before it in alphabetical order (note: don't count used strings)

Prefix Tree / Trie

