G. SONG

Thang is writing lyrics for his newly composed song. This time, he's come up with a criterion for writing lyrics. Let's denote string s (containing only lowercase alphabet letters) as the lyrics for the whole song. For each substring t, Thang defines:

- $length(t)$: the number of characters of t
- $frequency(t)$: the number of times t appears in s as a substring.
- $sum(t)$: the sum of value across all characters of t. The value of each letter, in this case, is its alphabet order ($'a' = 1, \dots, 'z' = 26$) .

Let's denote the set of unique substring of s as $U(s)$, Thang defines the beauty of lyrics s as:

$$beauty(s) = \sum_{t \in U(s)} length(t) \times frequency(t) \times sum(t)$$

You are to help Thang in composing his song. Thang is giving you a list of lyrics versions and you shall help him to calculate the beauty for each.

INPUT

The first line contains T ($T \leq 10$), the number of lyrics versions you are to calculate their beauty.

The i-th line of the next T lines contains the i-th lyrics version of the song s_i.

It is guaranteed that $\sum |s_i| \leq 5 \times 10^5$.

OUTPUT

Your program should output T lines, the i-th line should contains a positive integer representing the beauty of s_i in modulo $10^9 + 7$.

Sample Input	Sample Output
2 ab aba	9 30
3 thaychuathaychuaem cosaocosaodau toldyoutoldyouso	114760 32242 110823