## 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.
- $\operatorname{sum}(t)$ : the sum of value across all characters of $t$. The value of each letter, in this case, is its alphabet order ( ${ }^{\prime} a^{\prime}=1, \ldots,{ }^{\prime} z^{\prime}=26$ ) .

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

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

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 $\sum\left|s_{i}\right| \leq 5 \times 10^{5}$.

## 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 <br> ab <br> aba | 9 |
| 3 |  |
| thaychuathaychuaem <br> cosaocosaodau <br> toldyoutoldyouso | 114760 <br> 32242 |

