

Distinct Subsequences

Given a string, count the number of distinct subsequences of it (including empty subsequence). For the uninformed, a subsequence of a string is a new string which is formed from the original string by deleting some of the characters without disturbing the relative positions of the remaining characters.

For example, "AGH" is a subsequence of "ABCDEFGH" while "AHG" is not.

Input

First line of input contains an integer T which is equal to the number of test cases. You are required to process all test cases. Each of next T lines contains a string s.

Output

Output consists of T lines. Ith line in the output corresponds to the number of distinct subsequences of ith input string. Since, this number could be very large, you need to output $\text{ans} \% 1000000007$ where ans is the number of distinct subsequences.

Example

Input:

```
3
AAA
ABCDEFGG
CODECRAFT
```

Output:

```
4
128
496
```

Constraints and Limits

$T \leq 100$, $\text{length}(S) \leq 100000$

All input strings shall contain only uppercase letters.