

Problem I

Again Palindromes

Input: Standard Input
Output: Standard Output
Time Limit: 2 Seconds

A palindorme is a sequence of one or more characters that reads the same from the left as it does from the right. For example, **Z**, **TOT** and **MADAM** are palindromes, but **ADAM** is not.

Given a sequence **S** of **N** capital latin letters. How many ways can one score out a few symbols (maybe 0) that the rest of sequence become a palidrome. Varints that are only different by an order of scoring out should be considered the same.

Input

The input file contains several test cases (less than **15**). The first line contains an integer **T** that indicates how many test cases are to follow.

Each of the **T** lines contains a sequence **S** ($1 \leq N \leq 60$). So actually each of these lines is a test case.

Output

For each test case output in a single line an integer – the number of ways.

Sample Input

3	22
BAOBAB	15
AAAA	5
ABA	

Output for Sample Input

Russian Olympic Camp