Bull Placement Goldman Sachs 02

Q1: Problem Title

SECRET_MISSION

Problem Statement

You are an undercover agent. Its quite obvious for you to go on a secret mission. Once you were in the same secret mission and felt an urgent need to communicate with Dr. D, who appointed both of you for this mission. The only way to communicate with him was by sending encrypted letters. So, you will write the letter with some encrypted words which Dr. D was well aware of . As per the rules of encryption, the encrypted word will start with the middle character of the string and will be formed henceforth with the middle characters of the left and right substrings (of the middle character of the word) and so on. As it is an important information that you have to convey so, quickly finish the letter and send it to Dr. D.

Input

The first line contains an integer T denoting the number of TEST CASES. Each TEST CASE consists of 2 lines. The first line contains an integer N denoting the length of the word that needs to be encrypted. The second line contains the word that needs to be encrypted.

Output

N lines where each line will contain the encrypted words

Q2: Problem Title

Vowel Recognition

Problem Statement

{a,e,i,o,u,A,E,I,O,U} Natural Language Understanding is the subdomain of Natural Language Processing where people used to design AI based applications have ability to understand the human languages. HashInclude Speech Processing team has a project named Virtual Assistant. For this project they appointed you as a data engineer (who has good knowledge of creating clean datasets by writing efficient code). As a data engineer your first task is to make vowel recognition dataset. In this task you have to find the presence of vowels in all possible substrings of the given string. For each given string you have to print the total number of vowels.

Input

First line contains an integer T, denoting the number of test cases. Each of the next lines contains a string, string contains both lower case and upper case .

Output

Print the vowel sum Answer for each test case should be printed in a new line.