Problem 1



Your friend Anas is an accountant in RUMC. He has to complete the same tasks every day. The task is little difficult. He is given a large paragraph. And then the salary of different categories of employees. He has to search the category name from that paragraph. If it is there, then he enlists the salary amount, otherwise not. At last, he returns the total amount to his boss.

But he thinks that this is a boring job. As he was clever enough, he decided a plan to make a small script which will help him to finish his work in seconds. You are his best friend and a programmer. He needs your help to make the script for him.

INPUT

1. First line you have to enter the number of total test cases T
2. Then in the second line, you need to input a large paragraph (string) for each test cases
3. The third line, you have to enter the total categories of employees A
4. For next A lines, you need to input each category name and their salary amount separated by a space

OUTPUT

Calculate the total salary of all categories of employees mentioned in the paragraph in the specific format which is given in the sample.

SAMPLE

Input

1

Hello, this is a general article for rumc accountants. All teachers are allowed to take their salary in the beginning of the month. VP and principles are bullshit, but we decide not to give salary to workers.

5

Accountants 1300

VP 2000

Workers 500

Students 999

Canteen\_boy 10

Output

Case 1: 3800