

Voting

Filename: *voting*

Time limit: *3 seconds*

2020 is an election year, but surprisingly, Arup isn't usually interested in who wins elections. Rather, he likes to know the number of unique people who receive votes. Furthermore, Arup is classically impatient. So, instead of just finding out at the end of an election how many different people have received votes, he likes to ask the poll workers periodically throughout election day. Write a program to help the poll workers, so they can get Arup off their back!

The Problem

Given a list of events (either a vote or a query), in sequential order, answer all queries of the form, "how many different people have received votes thus far?"

The Input

The first line of input will contain a single positive integer, c ($c \leq 10$), representing the number of input cases to process. The input cases follow. The first line of each input case contains a single positive integer, n ($n \leq 10^5$), representing the number of votes and queries for the case. The following n lines contain the votes/queries, in the order in which they occur. Each line containing a vote will have the number 1, followed by a space, followed by a string of uppercase letters of length at most 10, representing that a vote was received for that candidate. Each line containing a query will just have the number 2 on it.

The Output

For each query, output a single integer representing the number of unique candidates who have received votes up until that point

Sample Input

```
2
5
1 BELL
1 GIVENS
2
1 BELL
2
4
2
1 ADAMS
1 ADAMS
2
```

Sample Output

```
2
2
0
1
```