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The Virtual Learning Environment for Computer Programming

The sixth friend

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Consider a world where a pandemic has imposed a new rule: No party can have more than six assistants. Given the lists of friends of each person in a group, we will call someone the sixth friend if he is not in the top five of at least *another* person. Being egocentric is not an option to avoid being the sixth friend, and therefore not being able to attend any party!



Can you compute the number of sixth friends in a group of people?

Input

Input consists of several cases. Each case begins with the number of people n, followed by n lines, one per person. Every line i contains the name p_i of the i-th person, his number of friends f_i , and the names of his f_i friends in order, from more to less favorite.

You can assume $1 \le n \le 10^4$, that all names are different and consist of between 1 and 10 letters, and $0 \le f_i \le 30$. The list of friends of each person p_i only includes names in $\{p_1, \ldots, p_n\}$, but can contain repeated names, including p_i one or more times.

For instance, among the five best friends of Joey in the sample in fact there are only Chandler, Phoebe and Rachel. Janice is the only sixth friend of the first case.

Output

For every case, print the number of sixth friends.

Sample input

```
7
Chandler 6 Monica Joey Ross Rachel Phoebe Janice
Monica 6 Chandler Monica Rachel Phoebe Joey Janice
Janice 3 Janice Chandler Janice
Ross 6 Rachel Rachel Rachel Rachel Janice
Rachel 7 Rachel Ross Monica Joey Phoebe Chandler Janice
Phoebe 5 Joey Monica Rachel Ross Chandler
Joey 8 Chandler Joey Chandler Phoebe Rachel Monica Ross Janice
4
A 3 D D D
B 7 B B B B B A A
C 0
D 2 D C
```

Sample output

1 2

Problem information

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