FORGOTTEN PASSWORD

For a space mission, ISRO sent a number of satellites to the moon. Each satellite has a security email-id and its password. Now, ISRO wants to generate a very strong password, so that the satellite cannot be accessed by hackers. So, they hired you fir that job. You defined the safest password is generated from the email in the following ways :
In the beginning, the password contains all the lower case letters which are in sorted order (alphabetically), after the lower case letters it contains upper case letters in sorted order (alphabetically).after lowercase and uppercase letters, it contains the number in the reverse order as it was inserted initially in the email.
Your task is to generate the password from the email-id ISRO provided you. Before you, ISRO had hired another scientist for this job, but he had a very weak memory, so he remembers very less part of password. After generating password, ISRO also wants you to find the length of longest common subsequence of the password you generated and the password which the Scientist remembers. A subsequence is a sequence that appears in the same relative order, but not necessarily contiguous. For example, “abc”, “abg”, “bdf”, “aeg”, “acefg”, etc are subsequences of “abcdefg”.

Since you are hired by ISRO, you should help them achieve that task too.

Note : - For retrieving the password, ignore everything after '@' symbol in the input as Email-id.

Input :-

- The first line of the input contains a single integer ***T*** denoting the number of test cases. The description of ***T*** test cases follows.
- The first and only line of each test case contains two space-separated strings containing the email id ***E*** and the password which scientist remembers ***P***.

Output:-

- For each test case, print a single line containing the retrieved password and the length of longest common subsequence separated by a space.

Constraints :-

- $1 \leq \boldsymbol{T} \leq 10^3$
- $10 \leq$ Length of $\boldsymbol{E} \leq 10^5$
- $1 \leq$ Length of $\boldsymbol{P} \leq$ Length of $\boldsymbol{E}$
- ***E*** can contain both lower, upper case letters and numbers.

Sample :-

- **Input :-**

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  aThArva.jAyPee@isro.gov.in aaee

  DaNiel.si6Ngh43@isro.gov.in agil36

- **Output :-**

  aaeehjrvAAPT 4

  aeghiilsDNN346 6

Time Limit: 2 seconds

Author: Atharva Thombre