

Kick Start 2016 - Round A

Country Leader

Problem

The Constitution of a certain country states that the leader is the person with the name containing the greatest number of different alphabet letters. (The country uses the uppercase English alphabet from A through Z.) For example, the name `GOOGLE` has four different alphabet letters: E, G, L, and O. The name `APAC CODE JAM` has eight different letters. If the country only consists of these 2 persons, `APAC CODE JAM` would be the leader.

If there is a tie, the person whose name comes earliest in alphabetical order is the leader.

Given a list of names of the citizens of the country, can you determine who the leader is?

Input

The first line of the input gives the number of test cases, **T**. **T** test cases follow. Each test case starts with a line with an interger **N**, the number of people in the country. Then **N** lines follow. The *i*-th line represents the name of the *i*-th person. Each name contains at most 20 characters and contains at least one alphabet letter.

Output

For each test case, output one line containing `Case #x: y`, where *x* is the test case number (starting from 1) and *y* is the name of the leader.

Limits

$1 \leq T \leq 100$.

Time limit: 20 seconds per test set.

Memory limit: 1GB.

$1 \leq N \leq 100$.

Small dataset (Test set 1 - Visible)

Each name consists of at most 20 characters and only consists of the uppercase English letters `A` through `Z`.

Large dataset (Test set 2 - Hidden)

Each name consists of at most 20 characters and only consists of the uppercase English letters `A` through `Z` and ' ' (space).

All names start and end with alphabet letters.

Sample

Sample Input

Sample Output

```
2
3
ADAM
BOB
JOHNSON
2
A AB C
DEF
```

```
Case #1: JOHNSON
Case #2: A AB C
```

In sample case #1, JOHNSON contains 5 different alphabet letters('H', 'J', 'N', 'O', 'S'), so he is the leader.

Sample case #2 would only appear in Large data set. The name DEF contains 3 different alphabet letters, the name A AB C also contains 3 different alphabet letters. A AB C comes alphabetically earlier so he is the leader.