Sorting Student Presentations

Filename: `sorting`

Your teacher is tired of sorting the students in the class in regular alphabetical order, since this means that certain students always go first for presentations. She has an idea to mix up the order of the students by sorting them in a different manner. In particular, she will not care about the order of the letters in the last name of a student. Instead, she will put the student who has the highest number of A's in his or her last name first. If there is a tie between two students based on this value, she'll compare the number of B's in their last names. If this is tied also, she will go on to C's, then D's, etc. The second student will be found using the same method, and so on until all of the students have presented.

The Problem:

Your job is to sort a list of student names based on this criterion. It is guaranteed that no class has two students who have names that are anagrams of one another; thus, there will not be any ties between two students (an anagram is a different arrangement of the same exact letters).

The Input:

The first line of the input file consists of a single positive integer, n, representing the number of classes in the file. The first line of each class contains a single positive integer, m ($1 < m < 100$), which represents the number of students in that class. Each of the following m lines will contain the last name of one student in the class. It is guaranteed that each name will only contain uppercase letters and will be between 1 and 20 characters long, inclusive.

The Output:

For the k^{th} ($1 \leq k \leq n$) class, output a single header line with the following format:

```
Class #k ordering
```

Then, output each name in the order given by the new sorting scheme, with one name per line. Put one blank line at the end of the output for each class.

(Sample Input and Sample Output follow on next page)

Sample Input:

```
2
2
JONES
LINDT
3
WALLACE
DAVIS
MADISON
```

Sample Output:

```
Class #1 ordering
LINDT
JONES

Class #2 ordering
WALLACE
MADISON
DAVIS
```