

Problem 1—Double Sorting

A poll of the male tributes revealed that the male tributes always wish to be listed in alphabetical order. Interestingly, a poll of the female tributes revealed that the female tributes always wish to be listed in reverse alphabetical order.

So, given a list of names, you need to sort the male names alphabetically and the female names reverse alphabetically, but the male names and female names must be interleaved in the output exactly the same way they are interleaved in the input.

INPUT SPECIFICATION. The input is divided into a number of cases. Each case begins with an unsigned positive decimal integer, n , indicating the number of names in the list followed by `<EOLN>`. Then follow n lines that consist of a character M or F, indicating the sex of the tribute, followed by one space, followed by a name, followed by `<EOLN>`. The name will consist of alphabetic characters only and will be a single word, not containing a space. Each input case will be followed by an extra `<EOLN>`. “0<EOLN>” will follow the last input case.

OUTPUT SPECIFICATION. The output cases should be in the same order as the input cases. Each output case should begin with “Case c ” and two `<EOLN>`'s where c is the case number. Then follow the n lines of the input case sorted as described above, and in the same format as in the input case. (The lines should be sorted in standard or reverse ASCII order. There's no dirty trick going on with uppercase and lowercase letters.) Each output case should be followed by an extra `<EOLN>`.

SAMPLE INPUT.

```
4<EOLN>
M·Peeta<EOLN>
M·Cato<EOLN>
F·Katniss<EOLN>
F·Rue<EOLN>
<EOLN>
5<EOLN>
F·Anna<EOLN>
F·Carol<EOLN>
M·Bob<EOLN>
F·Berta<EOLN>
M·Bill<EOLN>
<EOLN>
0<EOLN>
<EOF>
```

SAMPLE OUTPUT.

```
Case ·1<EOLN>
<EOLN>
M·Cato<EOLN>
M·Peeta<EOLN>
F·Rue<EOLN>
F·Katniss<EOLN>
<EOLN>
Case ·2<EOLN>
<EOLN>
F·Carol<EOLN>
F·Berta<EOLN>
M·Bill<EOLN>
F·Anna<EOLN>
M·Bob<EOLN>
<EOLN>
<EOF>
```