# PROBLEM B: PEPTIDES

**Input file:** standard input

**Output file:** standard output

**Problem**

In a laboratory it has been decided to study the peptides with respect to aminoacids which build them. All aminoacids have been assigned one character codes. Thus a sample aminoacids sequence of a peptide may look like this: FFAFTOKA

The aim of the study is to find among obtained peptides those which:
a) are built with the same aminoacids e.g. FFAFTOKA and OKATFA
b) are built with the same aminoacids and each aminoacid occur the same number of times in both peptides. The last example does not fulfil this condition because aminoacid F occurs three times in the first peptide and only once in the second one.

Your task is to write a program which searches input data for aminoacids fulfilling conditions a) or b).

**Input**

Any number of tests, each one ending with symbol 0. First line of test data contains the test name. Consecutive ones contain peptide data: peptide identifier and a symbol ":" followed by aminoacids sequence.

**Output**

Name of the test and below groups of peptides fulfilling conditions a) or b) (their identifiers). If for two peptides both conditions were fulfilled then their identifiers should be written. If only condition a) were fulfilled then identifier should be followed by symbol "*".
Groups should be listed in the same order as they appeared in input data.
Do not repeat groups what means that the output:

```
PT2 PT7
```

and later

```
PT7 PT2
```

is wrong.

**Assumptions**

Number of peptides in single test does not exceed 1000, number of aminoacids in a peptide does not exceed 200.

**Example**

***Input file***

```
    test1                          test2
PT1:XYXYXYXYXYXIKL          Man:FPFHJWWER
PT2:UJKLCTCTC               Gorilla:FPFJHEWRW
PT3:VICDAWR                 Pig:FPFJHER
PT4:KXXXXXXYYYYYLI          Mouse:FFPFJHRE
PT5:RRWADIVC                0
PT6:XYXYXYXYXYXIKL
PT7:UJKLCTCTC
PT8:VICDAWR
PT9:KXXXXXXYYYYYLI
PT10:RWADIVC
0
```

***Output file***

```
    test1                          test2
PT1 PT4 PT6 PT9             Man Gorilla
PT2 PT7                     Pig Mouse*
PT3 PT5* PT8 PT10
PT4 PT6 PT9
PT5 PT8* PT10*
PT6 PT9
PT8 PT10
```