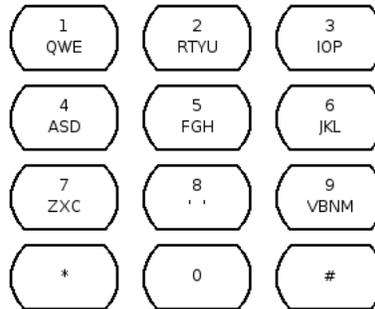


Problem QWERTY: QWERTY Cell Phone

Alice likes chatting. Because of a new job she has to travel a lot and leave her computer. She wants to use her cellphone to write messages to her friends. But she has problems using the cell phone's keyboard, because the keys are ordered alphabetically. But she expects them in the qwerty order of her keyboard. She asked a manufacturer for a customized phone with this keyboard.



She likes typing messages with her new keyboard. But the phone book doesn't work anymore. She wants to use the available GUI but needs a new backend. The backend gets the keys pressed indicated by the number of the key and should give back all matching entries of the phone book sorted by the name. To determine how much typing you can save by proposing longer names with matching prefix, you should also output the number of names, which have the input as prefix.

Input

All strings are lowercase. The input starts with the number of test cases. Each test case starts with the phone book. A phone book starts with the number of entries $n \leq 40,000$. The following n lines contains the entries. Each entry consists of a name (100 or less letters) and a phone number (18 or less digits) separated by a whitespace. After the phone book several queries follow. First the number of queries $m \leq 1000$. Then m queries, one each line. A query consists of the pressed keys (only digits).

Output

Put out all possible names and numbers sorted by the name alphabetically. If no entries matches output "no entries found". After that output the number of names, which have the input as prefix. Print a blank line between two test cases.

Sample Input 1

```
1
3
bob 111
momo 321
bobi 123
3
93
939
9393
```

Sample Output 1

```
no entries found
3
bob 111
2
bobi 123
momo 321
0
```