Phonebook project

In this assignment your task is to implement a phone book manager.

Queries

It should be able to process 3 types of queries:

- Add number name.

  It means that the user adds a person with name name and phone number number to the phone book. If there exists a user with such number already, then your manager has to add the new number to the existing ones.

- Delete name.

  It means that the manager should erase a person with name name from the phone book. If there is no such person, then it should just ignore the query.

- Find name.

  It means that the user looks for a person with name name. The manager should reply with the appropriate phone number, or with string "not found" (without quotes) if there is no such person in the book. In case of multiple phone numbers for the same person, return the shortest one(You can just compare the numbers like integers). Also, case matters. E.g. mom is not the same as Mom.

Input Format

There is a single integer N in the first line — the number of queries. It's followed by N lines, each of them contains one query in the format described above.

Constraints

1 <= N <= 10^5 . All phone numbers consist of decimal digits, they don't have leading zeros, and each of them has no more than 7 digits. All names are non-empty strings of latin letters, and each of them has length at most 15. It's guaranteed that there is no person with name "not found".

Output Format

Print the result of each find query — the phone number corresponding to the name or "not found" (without quotes) if there is no such person in the phone

book. Output one result per line in the same order as the find queries are given in the input.

Example:

- Input:

```
10
add 322 laundry
add 3410 school
add 311 laundry
del school
find laundry
find school
add 93035 dad
find dad
add 540 Mom
find mom
```

- Output:

```
311
not found
93035
not found
```

This assignment is due on Monday, July 13, 9:00 AM.