



STL pair

Implement different operations on pairs.

Input:

The first line of input contains an integer **T** denoting the no of test cases . Then T test cases follow. The first line of input contains an integer **Q** denoting the no of queries . Then in the next line are **Q** space separated queries .

A query can be of five types

1. a s x y (Adds a pair with string s and values x,y to the vector A at the end)
2. b (returns the size of the vector A)
3. c (prints space separated values of each element of the vector of pairs A)
4. d (sorts the pair's array with respect to the values x,y in ascending order)

Output:

The output for each test case will be space separated integers denoting the results of each query .

Constraints:

$1 \leq T \leq 100$

$1 \leq Q \leq 100$

Example:

Input

```
2
5
a ga 4 5 a ra 1 2 a sh 1 1 d c
4
a geeks 10 12 a code 11 11 b c
```

Output

```
sh 1 1 ra 1 2 ga 4 5
2 geeks 10 12 code 11 11
```

**Explanation :****For the first test case**

There are five queries. Queries are performed in this order

1. a ga 4 5 --> vector contents {ga,4,5}
2. a ra 1 2 --> vector contents {ga,4,5}, {ra,1,2}
3. a sh 1 1 --> vector contents are {ga,4,5}, {ra,1,2}, {sh,1,1}
4. d --> vector get sorted as {sh,1,1}, {ra,1,2}, {ga,4,5}
5. c --> vector values printed as 'sh 1 1 ra 1 2 ga 4 5 ' without quotes

For the sec test case

There are four queries. Queries are performed in this order

1. a geeks 10 12 --> vector A has {geeks,10,12}
2. a code 11 11 --> vector A has {geeks,10,12}, {code,11,11}
3. b --> prints the size of the vector A ie 2
4. c --> prints the elements of the pair of vectors as 'geeks 10 12 code 11 11' without quotes.