

Round D APAC Test

[A. Cube IV](#)

B. GBus count

[C. Sort a scrambled itinerary](#)

[D. Itz Chess](#)

Questions asked 4

Submissions

Cube IV

| | |
|------|---|
| 8pt | Not attempted 1708/2380 users correct (72%) |
| 15pt | Not attempted 1492/1679 users correct (89%) |

GBus count

| | |
|------|---|
| 9pt | Not attempted 2048/2354 users correct (87%) |
| 15pt | Not attempted 1865/2018 users correct (92%) |

Sort a scrambled itinerary

| | |
|------|---|
| 11pt | Not attempted 1623/1914 users correct (85%) |
| 15pt | Not attempted 1483/1602 users correct (93%) |

Itz Chess

| | |
|------|--|
| 12pt | Not attempted 654/1008 users correct (65%) |
| 15pt | Not attempted 393/622 users correct (63%) |

Top Scores

| | |
|-----------------|-----|
| dreamoon | 100 |
| Kriiii | 100 |
| Balajiganapathi | 100 |
| uws933 | 100 |
| NExPlain | 100 |
| culaucon | 100 |
| fahimzubayer18 | 100 |
| pattara.s | 100 |
| buaamm | 100 |
| lijiancheng | 100 |

Problem B. GBus count

This contest is open for practice. You can try every problem as many times as you like, though we won't keep track of which problems you solve. Read the [Quick-Start Guide](#) to get started.

Small input
9 points

Solve B-small

Large input
15 points

Solve B-large

Problem

There exists a straight line along which cities are built.

Each city is given a number starting from 1. So if there are 10 cities, city 1 has a number 1, city 2 has a number 2,... city 10 has a number 10.

Different buses (named GBus) operate within different cities, covering all the cities along the way. The cities covered by a GBus are represented as 'first_city_number last_city_number' So, if a GBus covers cities 1 to 10 inclusive, the cities covered by it are represented as '1 10'

We are given the cities covered by all the GBuses. We need to find out how many GBuses go through a particular city.

Input

The first line contains the number of test cases (**T**), after which **T** cases follow each separated from the next with a **blank** line.

For each test case,

The first line contains the number of GBuses.(**N**)

Second line contains the cities covered by them in the form

a₁ b₁ a₂ b₂ a₃ b₃...a_n b_n

where GBus1 covers cities numbered from a₁ to b₁, GBus2 covers cities numbered from a₂ to b₂, GBus3 covers cities numbered from a₃ to b₃, upto **N** GBuses.

Next line contains the number of cities for which GBus count needs to be determined (**P**).

The below **P** lines contain different city numbers.

Output

For each test case, output one line containing "Case #T_i:" followed by **P** numbers corresponding to the number of cities each of those **P** GBuses goes through.

Limits

1 <= **T** <= 10

a_i and **b_i** will always be integers.

Small dataset

1 <= **N** <= 50

1 <= **a_i** <= 500, 1 <= **b_i** <= 500

1 <= **P** <= 50

Large dataset

1 <= **N** <= 500

1 <= **a_i** <= 5000, 1 <= **b_i** <= 5000

1 <= **P** <= 500

Sample

Input

```
2
4
15 25 30 35 45 50 10 20
2
15
25

10
10 15 5 12 40 55 1 10 25 35 45 50 20 28 27 35 15 40 4 5
3
5

10
27
```

Output

```
Case #1: 2 1
Case #2: 3 3 4
```

Explanation for case 1:

2 GBuses go through city 15 (GBus1 [15 25] and GBus4 [10 20])
1 GBus goes through city 25 (GBus1 [15 25])

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