Problem A. GBus count

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...an bn**   
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 #Ti:" followed by **P** numbers corresponding to the number of cities each of those **P** GBuses goes through.

Limits

1 <= **T** <= 10   
**ai** and **bi** will always be integers.

Small dataset

1 <= **N** <= 50   
1 <= **ai** <= 500, 1 <= **bi** <= 500   
1 <= **P** <= 50

Large dataset

1 <= **N** <= 500   
1 <= **ai** <= 5000, 1 <= **bi** <= 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])