F	Traffic Count	Time limit: 3 sec

My friends Tushar , Hemel and Shovon recently built a software named “Traffic Count!”. Few days ago I asked them “Tell me something about your software.”. Shovon replied smartly “Oh! It’s an android software . Any person using this software, will know how many vehicles are present in the road at a certain time of period!” Being astonished I asked them “How do you calculate this?”. This time Hemel answered me, “Our software was pre-loaded with 10^7+1 types of vehicles and they are numbered from 0,1,2,……,10^7 . Whenever a user connect our software to the internet, the software receives datas from our server. Our server holds the last t (t ≤ 10 ^ 5) seconds data. Each second, an integer is shown which indicates a type of vehicle enters into our server. User can give any number of q (q ≤ 10^5) queries . For each query user need to insert 4 integers t1 , t2 , type1 , type2. Our software returns how many vehicles from type1 to type2 are present from time t1 to time t2.Now the main question is how does our server work? "But I am not telling you about this. You don't need to know about the theory." Now I want to build this type of software as quick as possible . I know how the server works. But I don’t know how the software answers the user queries quickly? I need your help to find this.

Input:

First line contains an integer **T** (**T** ≤ 10), the number of test cases.

Each case contains a number **t,** which indicates the server holds information of last **t** seconds. Next line will contain **t** integers which means every **i**th (0 ≤ i ≤ t - 1) second, server records an integer **k** (type of vehicle). Next an integer Q (number of queries) is given . For each query four integers are given **t1**, **t2**, **type1**, **type2** (0 ≤ **t1** ≤ **t2** ≤ t - 1 , 0 ≤ **type1** ≤ **type2** ≤ 10^7) .

Output:

At first print the test case number . And for each case print the required answer for each query. Follow the I/O formats exactly.

Input	Output
1 5 2 2 3 4 5 2 1 4 1 5 0 1 2 30	Case 1: 4 2

Look ,

For query 1 , there are four vehicles (2,3,4,5) which are recorded in the server from 1st to 4th second. All vehicles types are from 1^{st} type to 5^{th} type . So the answer is 4 .

For query 2 , there are two vehicles (2,2) which are recorded in the server from 0th to 1st second. All vehicles types are from 2^{nd} type to 30^{th} type . So the answer is 2 .