

## 1188 – Fast Queries

Given an array of  $N$  integers indexed from  $1$  to  $N$ , and  $q$  queries, each in the form  $i\ j$ , you have to find the number of distinct integers from index  $i$  to  $j$  (inclusive).

### Input

Input starts with an integer  $T$  ( $\leq 5$ ), denoting the number of test cases.

The first line of a case is a blank line. The next line contains two integers  $N$  ( $1 \leq N \leq 10^5$ ),  $q$  ( $1 \leq q \leq 50000$ ). The next line contains  $N$  space separated integers forming the array. These integers range in  $[0, 10^5]$ .

Each of the next  $q$  lines will contain a query which is in the form  $i\ j$  ( $1 \leq i \leq j \leq N$ ).

### Output

For each test case, print the case number in a single line. Then for each query you have to print a line containing number of distinct integers from index  $i$  to  $j$ .

Sample Input	Output for Sample Input
1  8 5 1 1 1 2 3 5 1 2 1 8 2 3 3 6 4 5 4 8	Case 1 : 4 1 4 2 4

### Note

Dataset is huge. Use faster I/O methods.