Exercício Extra 1

N-Wal-mart is a Portuguese multinational retail corporation specialized in trading products with non-negative integer prices (0). After a breakage in their warehouses due to a flood in the Douro river, they lost their inventory lists. Now, they require the expertise of the students of the University of Porto to write a program that, given a sequence of products (each product is identified by its price, however, there are potentially several items of the same product) respond to a list of queries with the following question:

How many different products are in the interval [A...B)?

Input

The first line contains an integer $1 \leq T \leq 10^2$, the number of test cases. Each test case start with an integer $0 \leq n \leq 10^5$ specifying the number of items, followed by n integers describing the products. Then, there is an integer $0 \leq q \leq 10^4$ specifying the number of queries, followed by the sequence of queries. Each query consists of a pair of integers Ai, Bi.

Output

Your program must print a single line for each query with the response for the aforementioned question. There is an empty line after each test case.

Sample Input

```
2
10
1 1 4 1 5 6 6 2 6 1
5
0 3
1 5
5 10
4 4
7 7
0
1
10 20
```

Sample Output

```
2
3
2
0
0

0
```

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Exercício Extra 2

https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=628&page=show_problem&problem=63

Exercício Extra 3

https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=628&page=show_problem&problem=455

Exercício Extra 4

https://uva.onlinejudge.org/index.php?option=com_onlinejudge&Itemid=8&category=627&page=show_problem&problem=3139