13095 Tobby and Query

In his free time Tobby is always searching for interesting things. This time Tobby created the following problem: given a sequence of n integer numbers, Tobby would like to know how many different numbers are in the range $[l, r]$ ($r \geq l$).

Input

The input has several test cases. The first line of each test case contains an integer n ($1 \leq n \leq 10^5$), the size of the sequence of numbers. The next line contains n values a_i ($0 \leq a_i \leq 9$), the numbers in the sequence. The next line contains an integer q ($1 \leq q \leq 10^4$), the amount of queries. Then there are q lines, each line contains a query: two integers l and r ($1 \leq l, r \leq n$).

Output

For each test case print q integers, representing the amount of different numbers in the range $[l, r]$ for each query in the input.

Sample Input

```
7
0 2 3 3 7 5 2
3
1 1
2 4
2 7
5
7 7 7 7 7
2
4 5
1 5
```

Sample Output

```
1
2
4
1
1
```