

DQUERY - D-query

Đọc đề đẹp hơn ở:

<https://codeforces.com/group/FLVn1Sc504/contest/274490/problem/O>

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English (/problems/DQUERY/en/)

Vietnamese (/problems/DQUERY/vn/)

Given a sequence of n numbers a_1, a_2, \dots, a_n and a number of d -queries. A d -query is a pair (i, j) ($1 \leq i \leq j \leq n$). For each d -query (i, j) , you have to return the number of distinct elements in the subsequence a_i, a_{i+1}, \dots, a_j .

Input

- Line 1: n ($1 \leq n \leq 30000$).
- Line 2: n numbers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^6$).
- Line 3: q ($1 \leq q \leq 200000$), the number of d -queries.
- In the next q lines, each line contains 2 numbers i, j representing a d -query ($1 \leq i \leq j \leq n$).

Output

- For each d -query (i, j) , print the number of distinct elements in the subsequence a_i, a_{i+1}, \dots, a_j in a single line.

Example

Input

```
5
1 1 2 1 3
3
1 5
2 4
3 5
```

Output

```
3
2
3
```