



DQUERY - D-query

[#sorting](#) [#tree](#)

English

[Vietnamese](#)

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
```

Submit solution!

[hide comments](#)

< Previous **1** 2 3 4 5 6 Next >



TP: 2016-06-30 22:29:04

AC(0.30) with Bit + Sorting + (use printf,scanf). cin,cout and vectors cost me 1 TLE. AC (0.50) with MO and scanf.

Last edit: 2016-07-01 01:32:05



ahmad_gafer: 2016-06-08 04:19:20

AC with BIT+sorting , first submission :D



kliu31415: 2016-06-05 06:07:05

Mo's algorithm+slow IO is somehow faster than 2D range tree with fast IO... lol



[narutorocks](#): 2016-05-20 06:56:26
Cheated But LEARNT A NEW ALGORITHM



[proficient](#): 2016-05-18 15:33:07
Anyone here got AC with bitset + square root decomposition of array (not query / MO)? Couldn't get pass the time limit. My algorithm is $O(Q * 2 * \sqrt{N})$ using bitset and square root decomposition. Tried fast IO, inlining and custom implementation of bitset, still not pass time limit



[fnf](#): 2016-04-15 16:55:11
NEVER use $a \leq b$ in comparators. All comparators must be like $a < b$.



[kaynaat](#): 2016-04-02 19:19:05
i have solved this problem with MO's algorithm. but i am unable to figure out how to do this with BIT ? can anybody help me with clear understanding as to why and how one should use BIT ?



[farhad chowdhury](#): 2016-03-17 21:50:20
Can anyone tell me why i got ac with ".42" time where the time limit is ".227"



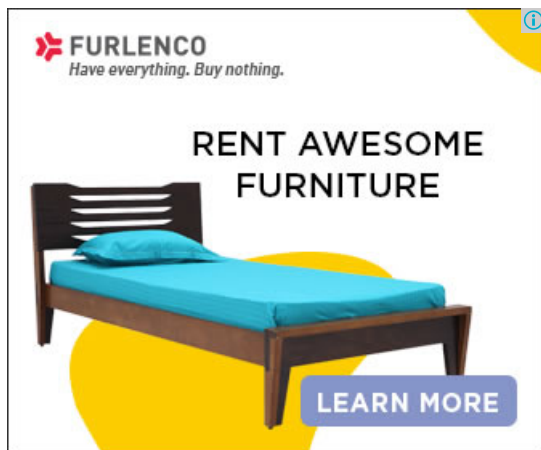
[Arpan Mukherjee](#): 2016-03-03 16:16:38
One piece of advice for MO's algorithm. Don't use vector of nested pair. Use structure. Pair did cost me 15 TLEs.



[prateek1985](#): 2016-02-29 14:23:26
Learned lot of new things but still TLE using segment trees in Java!!!

 Submit solution!

Added by: [Duc](#)
Date: 2008-10-26
Time limit: 0.227s
Source limit: 50000B
Memory limit: 1536MB
Cluster: [Cube \(Intel G860\)](#)
Languages: All except: ERL JS NODEJS
PERL 6 VB.net
Resource: © [VNOI](#)



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