

HOME TOP CATALOG CONTESTS GYM PROBLEMSET GROUPS RATING EDU API CALENDAR HELP

STEP 1 STEP 2 STEP 3 STEP 4 | THEORY PRACTICE | SUBMIT SUBMISSIONS HACKS STANDINGS CUSTOM INVOCATION ITMO Academy: pilot course » Segment Tree, part 1 » Step 4 » Practice

## C. Number of Inversions on Segment

time limit per test: 4 seconds memory limit per test: 1024 megabytes input: standard input output: standard output

Given an array a, consisting of small integers ( $1 \le a_i \le 40$ ). You need to build a data structure that processes two types of queries:

- 1. find the number of inversions on a segment,
- 2. change the element of the array.

## Input

The first line contains two integers n and q, the length of the array and the number of queries, respectively (  $1 \le n, q \le 10^5$ ).

The second line contains n numbers  $a_1$ , ...,  $a_n$ , where  $a_i$  is the initial state of the array ( $1 \le a_i \le 40$ ).

The following q lines describe the queries. Each of these lines has the format " $type_i \ x_i \ y_i$ ".

If  $type_i=1$ , then in the i-th query you need to find the number of inversions on a segment from  $x_i$  to  $y_i$ , inclusive (in this case  $1 \le x_i \le y_i \le n$ ).

If  $type_i=2$ , then the element with the index  $x_i$  is set to  $y_i$  (in this case  $1\leq x_i\leq n, 1\leq y_i\leq 40$ ).

## Output

For each request of type 1 print the answer to this request on a separate line.

## Example



Codeforces (c) Copyright 2010-2024 Mike Mirzayanov
The only programming contests Web 2.0 platform
Server time: Jun/29/2024 14:22:16 (g1).
Desktop version, switch to mobile version.

Privacy Policy

Supported by



