

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

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

C. Sequential Sequence

time limit per test: 3 seconds memory limit per test: 512 megabytes

"This time, I want to connect not just the people around me, but the whole world," Kiwi once had a small dream about linking.

If she applies that dream to a certain sequence $s_1, s_2, \ldots s_n$, then a criterion sequential emerges:

- 1. Let s' be a copy of s, then sort s' in ascending order;
- 2. If $s_i'-s_{i-1}'=1$ satisfies for all $i\in [2,n]$, then we call the sequence s sequential.

One day, she is given a sequence a of length n, and her mission is to process q queries. Each query is one of the following types:

- 1 x y: change a_x to y, i.e., $a_x := y$;
- $2\ l\ r$: check whether the continuous subsequence a_l,a_{l+1},\ldots,a_r is *sequential*.

Because of too many deadlines, Kiwi asked you to help her with the mission.

Input

There are multiple test cases. The first line of the input contains a single integer t ($1 \le t \le 100$), denoting the number of test cases. For each test case:

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

The second line contains n integers a_i $(1 \le a_i \le 10^5)$.

For the following q lines, the i-th line contains three integers, denoting the i-th query. Each query is one of the following types:

- $1 x_i y_i \ (1 \le x_i \le n, 1 \le y_i \le 10^5)$;
- $2 l_i r_i (1 \leq l_i \leq r_i \leq n)$.

It's guaranteed that the sum of n and the sum of q over all test cases doesn't exceed $2 imes 10^5$.

Output

For each query of type 2, output YES if the sequence is *sequential*. Otherwise, output NO.

You may print each letter in any case (Yes, Yes will all be recognized as a positive answer, No, no, no will all be recognized as a negative answer).

Example

input	Сору
Input	СОРУ
2	
5 7	
1 1 1 2 1	
2 3 5	
1 5 3	
1 2 4	
2 2 5	
2 1 5	
1 1 5	
2 1 5	
3 6	
11 12 13	
2 1 1	
2 1 2	
2 1 3	
1 2 14	
2 2 3	
2 1 2	
output	Сору
NO	
YES	
NO	
YES	
NO NO	

Note

For the first sample test case, there are 7 queries:

- 1. Check the subsequence 1, 2, 1. After sorting, s' = [1, 1, 2]. Absolutely, $s_2 s_1 = 0$, so the subsequence is not sequential;
- 2. Change a_5 to 3. After that, the sequence became: 1,1,1,2,3;
- 3. Change a_2 to 4. After that, the sequence became: 1,4,1,2,3;
- 4. Check the subsequence 4, 1, 2, 3. The subsequence satisfies the criterion, and it is *sequential*;

5. . . .

2025 Fujian Normal University Programming Contest

Finished

Practice



→ Virtual participation

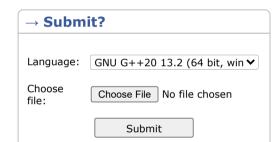
Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Clone Contest to Mashup

You can clone this contest to a mashup.

Clone Contest



ightarrow Last submissions		
Submission	Time	Verdict
320811802	May/22/2025 20:31	Accepted
320811143	May/22/2025 20:26	Accepted
320807261	May/22/2025 19:55	Time limit exceeded on test 5
320807040	May/22/2025 19:53	Time limit exceeded on test 5
320805050	May/22/2025 19:37	Wrong answer on test 3
320804618	May/22/2025 19:33	Wrong answer on test 2
320789284	May/22/2025 17:29	Wrong answer on test 3
320789121	May/22/2025 17:28	Wrong answer on test 3
<u>320788049</u>	May/22/2025 17:20	Wrong answer on test 3
320787821	May/22/2025 17:18	Time limit exceeded on test 6

