

Description	My Submissions	Hints/Editorial	AC Submissions	My Notes (0)
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# STL Searching

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Ask Doubt

Time-Limit: 1 sec

Score: 100.00/100

Difficulty :

Memory: 256 MB

Accepted Submissions: 100

## Description

You are given an array A of size N. You have to answer the following queries

- 1 x - Find the smallest Element  $\geq x$
- 2 x - Find the smallest Element  $> x$
- 3 x - Find the number of elements  $\leq x$
- 4 x - Find the number of elements  $< x$

If the answer does not exist print -1.

## Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains two space-separated integers N Q - the size of the given array and the number of queries

The second line of each test case contains N space-separated integers.

Each of the next Q lines contains the queries in the form of t x.

## Output Format

For each test case, print the answer of the required queries.

## Constraints

$1 \leq T \leq 10^5$

$1 \leq N, Q \leq 10^5$

$1 \leq A_i \leq 10^6$

$1 \leq t \leq 4$

$1 \leq x \leq 10^6$

It is guaranteed that the sum of Q over all test cases does not exceed  $10^5$ .

## Sample Input 1

Copy

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

C++14[GCC] ▾

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1