

PROBLEMS SUBMIT CODE MY SUBMISSIONS STATUS STANDINGS CUSTOM INVOCATION

A. Binary Search

time limit per test: 2.5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

you have a sorted array of pair contains n elements (0-base) and q query, each query is one of these 3 types :

- $lower\ x$: x is pair, mean find the greatest j ($0 \leq j < n$) such that : $a_j < x$, if not found print -1 .
- $upper\ x$: x is pair, mean find the smallest j ($0 \leq j < n$) such that : $a_j > x$, if not found print -1 .
- $find\ x$: x is pair, mean find x in the array or not.if x in array print "found" otherwise print "not found".

Input

The first line of input contains two integers n,q ($1 \leq n,q \leq 10^5$).

The next n lines contains two number $first_i, second_i$ ($1 \leq first_i, second_i \leq 10^9$).

The next q lines contains the queries. ($1 \leq first_x, second_x \leq 10^9$).

Output

print the answer for each query in one line.

Example

inputCopy

5 6
1 1
2 3
4 3
4 5
5 3
lower 5 2
upper 4 2
upper 3 1
find 5 2
lower 1 1
find 6 1

outputCopy

3
2
2
not found
-1
not found

ICPC Assiut University Training - Standard - Juniors Phase 1

Public

Participant

→ Group Contests

- Standard #5 (Bits , bit-masking)
- Standard #4 (Binary search , two pointers)
- Standard #3 (set , sorting, compare function , map)
- Standard #2 (binary search , stack , queue, deque , priority queue)
- Standard #1 (Frequency , prefix sum , vector , pair ,struct)

Standard #4 (Binary search , two pointers .)

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

→ Submit?

Language: GNU G++20 11.2.0 (64 bit, w

Choose file: Choose File No file chosen

Submit

→ Last submissions

Submission	Time	Verdict
226594852	Oct/04/2023 16:34	Accepted
226593315	Oct/04/2023 16:23	Accepted
226592679	Oct/04/2023 16:18	Wrong answer on test 3
226592153	Oct/04/2023 16:14	Wrong answer on test 3