ICPC Assiut University Community

Juniors Phase 1 Training ,Do Your Best



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

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 $j\ (0 \le j < n)$ 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 $n,q \ (1 \le n, q \le 10^5)$.

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



<u>ICPC Assiut University Training -</u> <u>Standard - Juniors Phase 1</u>

Public

Participant



→ Group Contests

function, map)



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

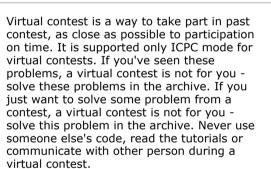
<u>Standard #4 (Binary search , two pointers)</u>

Finished

Practice



\rightarrow Virtual participation



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