

A. set

time limit per test: 1 second  
memory limit per test: 256 megabytes  
input: standard input  
output: standard output

you have an empty set and  $q$  query, each query is one of these 4 types :

- $lower\_bound\ x$  : mean find first element greater than or equal  $x$ , if not found print -1.
- $upper\_bound\ x$  : mean find first element greater than  $x$ , if not found print -1.
- $find\ x$  : mean find  $x$  in the set or not.if  $x$  in set print "found" otherwise print "not found".
- $insert\ x$  : mean add  $x$  to the set.

Input

The first line of input contains one integer  $q$  ( $1 \leq q \leq 10^5$ ). The next  $q$  lines contains the queries. ( $1 \leq x \leq 10^9$ ).

Output

print the answer for each query in one line.

Example

input	Copy
10 insert 1 insert 2 insert 3 insert 4 insert 5 find 5 lower_bound 5 upper_bound 4 lower_bound 1 find 6	
output	Copy
found 5 5 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 #3 (set , sorting, compare function , map )

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
<a href="#">226566656</a>	Oct/04/2023 12:47	Accepted
<a href="#">226564754</a>	Oct/04/2023 12:39	Wrong answer on test 3
<a href="#">226564614</a>	Oct/04/2023 12:37	Time limit exceeded on test 2
<a href="#">226564334</a>	Oct/04/2023 12:35	Wrong answer on test 1
<a href="#">226564254</a>	Oct/04/2023 12:34	Time limit exceeded on test 2
<a href="#">226564196</a>	Oct/04/2023 12:34	Time limit exceeded on test 2