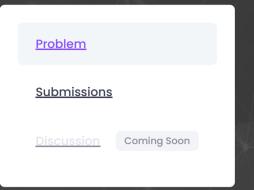




Ekrem and Tahsin

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Ekrem is a smart kid who loves playing on the number line. Ekrem comes up with a funny game for his best friend, Tahsin. Ekrem chooses some ranges from the number line and tells them to Tahsin. Tahsin then asks Ekrem if this number falls within any range that Ekrem chooses. Ekrem says yes if the number falls within any ranges, otherwise says no. Ekrem guarantees that there is no overlapping between the ranges he chose.

Input Format

The first line contains two integers N and Q, N is the number of ranges that Ekrem chose and Q is the number of numbers that Tahsin asks. The next N lines contain two integers L and R, endpoints of the range (L and R including) The next Q lines contain an integer X, the number that Tahsin asks Ekrem.

Output Format

You should print Q lines. For each number, if the given number falls within any of the ranges print "Yes" otherwise print "No".

Constraints

```
1 \leq N,Q \leq 10^5 1 \leq L_i,R_i,Q_i \leq 10^9
```

Sample Input 1 🔲

```
3 4
1 3
5 6
8 10
2
3
4
7
```

Sample Output 1 🔲

```
Yes
Yes
No
No
```

```
C++ (GCC 9.2.0)
                                                            Memory Limit (kB): 256000 Time Limit (s):1
                              Bright
11
        vector < pair<int,int> > ranges(N);
12
        for (int i = 0; i < N; i++)
13
            cin >> ranges[i].first >> ranges[i].second;
14
15
        sort(ranges.begin(), ranges.end());
16
17
        while(Q--){
18 🔻
             int x;
19
20
             cin >> x;
            bool found = false;
21
22
             int left = 0, right = N - 1;
23
             while(left <= right) {</pre>
24 -
                 int mid = (right + left) / 2;
25
                 if (x <= ranges[mid].second && x >= ranges[mid].first)
26
```

```
28
                    found = true;
29
                    break;
30
                else if (x < ranges[mid].first)</pre>
31
                    right = mid - 1;
32
                else
33
                    left = mid + 1;
34
35
            if (found)
36
                cout << "Yes\n";</pre>
37
            else
38
                cout << "No\n";</pre>
39
40
41 }
                            Test against custom test case
                                                                       Run Code
  1 Upload File
                                                                                     Submit
                              Accepted
  ✓ <u>Sample Test Case 0</u>
                              Input(stdin)
                                 1 3 4
                                 2 1 3
                                 3 5 6
                                 4 8 10
                                 5 2
                                 6 3
                                    4
                                 7
                                 8
                                 9
                              Output(stdin)
                                 1 Yes
                                 2 Yes
                                 3 No
                                    No
                                 4
                                 5
                              Expected Output
                                 1 Yes
                                    Yes
                                 2
                                    No
                                 3
                                 4
                                    No
                                 5
```

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