Problem

Submissions

Discussion Coming Soon

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) Bright Memory Limit (kB) : 256000 Time Limit (s) : 1

```cpp
    vector < pair<int,int> > ranges(N);

    for (int i = 0; i < N; i++)
        cin >> ranges[i].first >> ranges[i].second;

    sort(ranges.begin(), ranges.end());

    while(Q--){
        int x;
        cin >> x;
        bool found = false;

        int left = 0, right = N - 1;
        while(left <= right) {
            int mid = (right + left) / 2;
            if (x <= ranges[mid].second && x >= ranges[mid].first)
            {
```

```
            {
                found = true;
                break;
            }
            else if (x < ranges[mid].first)
                right = mid - 1;
            else
                left = mid + 1;
        }
        if (found)
            cout << "Yes\n";
        else
            cout << "No\n";
    }
}
```

Upload File

Test against custom test case

Run Code

Submit

Sample Test Case 0

Accepted

Input(stdin)

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

Output(stdin)

```
Yes
Yes
No
No
```

Expected Output

```
Yes
Yes
No
No
```

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