

Please read [the new rule regarding the restriction on the use of AI tools](#).

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H. Robin Hood Archery

 time limit per test: 3 seconds
 memory limit per test: 256 megabytes

*At such times archery was
 always the main sport of the
 day, for the Nottinghamshire
 yeomen were the best hand at
 the longbow in all merry
 England, but this year the
 Sheriff hesitated...*

Sheriff of Nottingham has organized a tournament in archery. It's the final round and Robin Hood is playing against Sheriff!

There are n targets in a row numbered from 1 to n . When a player shoots target i , their score increases by a_i and the target i is destroyed. The game consists of turns and players alternate between whose turn it is. Robin Hood always starts the game, then Sheriff and so on. The game continues until all targets are destroyed. Both players start with score 0.

At the end of the game, the player with most score wins and the other player loses. If both players have the same score, it's a tie and no one wins or loses. In each turn, the player can shoot any target that wasn't shot before. Both play optimally to get the most score possible.

Sheriff of Nottingham has a suspicion that he might lose the game! This cannot happen, you must help Sheriff. Sheriff will pose q queries, each specifying l and r . This means that the game would be played only with targets $l, l + 1, \dots, r$, as others would be removed by Sheriff before the game starts.

For each query l, r , determine whether the Sheriff can **not lose** the game when only considering the targets $l, l + 1, \dots, r$.

Input

The first line of input contains one integer t ($1 \leq t \leq 10^4$) — the number of test cases.

The first line of each test case contains two integers n, q ($1 \leq n, q \leq 2 \cdot 10^5$) — the number of targets and the queries Sheriff will pose.

The second line of each test case contains n integers a_1, a_2, \dots, a_n ($1 \leq a_i \leq 10^6$) — the points for hitting each target.

Then follow q lines, each with two integers l and r ($1 \leq l \leq r \leq n$) — the range of the targets that is considered for each query.

It is guaranteed that the sum of both n and q across all test cases does not exceed $2 \cdot 10^5$.

Output

For each query, output "YES", if the Sheriff **does not lose the game** when only considering the targets $l, l + 1, \dots, r$, and "NO" otherwise.

You can output the answer in any case (upper or lower). For example, the strings "yEs", "yes", "Yes", and "YES" will be recognized as positive responses.

Example

Codeforces Round 974 (Div. 3)

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 13.2 (64 bit, w...

Choose file: Choose File No file chosen

Submit

→ Problem tags

data structures games greedy

hashing probabilities

No tag edit access

input

Copy

```
2
3 3
1 2 2
1 2
1 3
2 3
5 3
2 1 2 1 1
1 2
1 3
4 5
```

output

Copy

```
NO
NO
YES
NO
NO
YES
```

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