11331   The Joys of Farming

Farmer John owns b bulls and c cows. He also owns $b + c$ fields where each field can hold either one cow or one bull. The fields are located in an area with many hills, so for some pairs of fields the animals in those fields cannot see each other. Unfortunately, his bulls really do not like each other, and neither do his cows. To avoid making any animal angry, John would like to assign the animals to fields such that no two bulls can see each other and no two cows can see each other. Help determine if John can assign his bulls and cows in such a manner.

Input

The first line of input contains n, the number of examples. The first line of each example contains integers b, c, and a where $0 \le b, c \le 1000$ are, respectively, the number of bulls and cows and $0 \le a \le 20,000$. The next a lines of input each contains two numbers u and v which indicates that animals placed in fields u and v can see each other. Fields are numbered from 1 to $b + c$.

Output

For each example, output a single line containing 'yes' if peace can be ensured, and 'no' if it can not.

Sample Input

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

Sample Output

```
yes
no
```