RBG Queries

A RBG color is formed by adding different intensities of Red, Blue and Green Colors. So, any RBG color can be represented in the form of a triplet (r, b, g) where r is intensity of red color, b denotes is of blue color and g is intensity of green color.

You have been given n colors, where each color has the intensities of red, blue and green color as (r_i, b_i, g_i). You can make new colors by mixing a subset of these colors. So, if you mix the colors $(r_1, b_1, g_1), (r_2, b_2, g_2), \cdots, (r_k, b_k, g_k)$ you would get a color having respective intensities of red, blue and green as $(max(r_1, r_2, \cdots r_k), max(b_1, b_2, \cdots b_k), \cdots, max(g_1, g_2, \cdots g_k))$.

For example, mixing colors $(4, 2, 3)$, $(5, 1, 1)$ and $(0, 0, 6)$ would give color $(5, 2, 6)$.

You have been asked q queries, where in each query you need to answer whether is it possible to obtain a color (x, y, z) by mixing the given colors.

Note: that you may mix any number of colors (possibly one) to make the required color.

Input Format

The first line of input contains two space separated integers n and q.

The next n lines of input contains three space separated integers r_i, b_i and g_i denoting the respective intensities of red, blue and green in the i^{th} color.

The next q lines of input contains three space separated integers x, y and z denoting the respective intensities of red, blue and green color required.

Constraints

- $1 \leq n, q \leq 10^5$
- $0 \leq r_i, b_i, g_i, x, y, z \leq 10^5$

Output Format

For each query print a single line containing "YES" if it is possible to obtain the given color, else print "NO".

Sample Input 0

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

Sample Output 0

```
YES
NO
```

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Explanation 0

For the first query, we can mix both the given colors to get $(5, 3, 5)$

For the second query, there's no way to acheive the given color.

Sample Input 1

```
4 3
1 1 1
0 0 2
5 0 0
5 2 2
0 0 2
5 1 2
5 3 2
```

Sample Output 1

```
YES
YES
NO
```

Explanation 1

For the first query, we need not mix any color as the 2^{nd} color is the required color.

For the second query, we have to mix the first 3 colors, i.e. $(1, 1, 1)$,$(0, 0, 2)$ and $(5, 0, 0)$ to obtain the given color.

For the second query, there's no way to acheive the given color.

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