Problem B - Boxes on Boxes

Daniel is picking up food for ACM practice from the delivery guy. The food comes in a variety of boxes. Some are pizza boxes, some are boxes of chicken wings, and some are smaller boxes of cheesy bread. To make things more efficient, Daniel is stacking the boxes on top of each other to make an *orderly stack* so he can carry them to practice. An orderly stack follows the following rules:

- Each box must be oriented properly. This means the top of the box is facing upwards and the front side of the box is facing Daniel.
- The dimensions of the base of one box on top of another must be strictly smaller in both dimensions. Let ℓ_i denote the length of the front side of the (i)th box, and w_i denote the width of the box. Then for any box j in the stack, $\ell_j < \ell_{j+1}$ and $w_j < w_{j+1}$ if the $(j+1)$th box exists.

Daniel made some measurements of the dimensions of the box. Daniel wants to know the maximum number of boxes he can put in a stack so he can move the boxes efficiently.

Input

The first line contains a single integer, T specifying the number of test cases.

Each test case begins with on single integer $n(1 \leq n \leq 10^6)$, denoting the number of boxes that Daniel has. On each of the next n lines will contain three space seperated integers of integers ℓ, w, and $h(1 \leq \ell, w, h \leq 10^8$, denoting a box with front side having length ℓ, the other side having length w and the box having height h. Daniel requires that his orderly stack of pizza boxes maintain this orientation in the stack.

Output

For each test case, output one line with the integer representing the maximum number of boxes Daniel can put onto a single orderly stack.

Sample Input

```
3
1
1 2 3
2
1 2 3
2 1 4
3
1 1 7
3 3 7
2 2 7
```

Sample Output

```
1
1
3
```