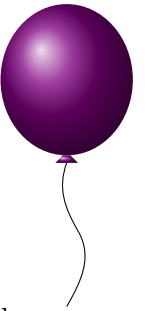


Windows

TIME LIMIT: 2.0s
MEMORY LIMIT: 256MB



The screen of your computer is displaying a set of rectangular windows which may intersect and overlap.

Find a point that is covered by the largest number of them.

INPUT

First line of the input contains one integer n — the number of windows ($1 \leq n \leq 50\,000$).

Next n lines contain coordinates of windows $x_{(1,i)} \ y_{(1,i)} \ x_{(2,i)} \ y_{(2,i)}$, where $(x_{(1,i)}, y_{(1,i)})$ are coordinates of the top left corner of the window number i and $(x_{(2,i)}, y_{(2,i)})$ are coordinates of its bottom right corner.

On the computer screen y coordinates increase from top to bottom and x coordinates increase from left to right.

All the coordinates are integers and their absolute value does not increase 10^6 .

OUTPUT

In the first line output the maximum number of windows that covers some point of the screen in the given configuration. In the second line output two integers separated by a space — coordinates of a point covered by the maximum number of windows. Windows cover their boundaries as well.

SAMPLES

Sample input 1	Sample output 1
2 0 0 3 3 1 1 4 4	2 1 3

Sample input 2	Sample output 2
1 0 0 1 1	1 0 1

Sample input 3	Sample output 3
4 0 0 1 1 0 1 1 2 1 0 2 1 1 1 2 2	4 1 1

Sample input 4	Sample output 4
5 0 0 1 1 0 1 1 2 0 0 2 2 1 0 2 1 1 1 2 2	5 1 1