# AUBG, Computer Science Department
# Annual Programming Competition
# March 22, 2017

**Task. Rectangles**

Given are *N* rectangles in the plane with sides parallel to the coordinate axes. No any two rectangles have common points on their contours. Write program that finds the longest sequence of rectangles, such that each rectangle in this sequence (except the first one) is inside the previous one.

**Input.** First line contains *N* and is followed by *N* lines. In each of them, four integers are written *x*, *y*, *a*, *b*, separated by spaces, where *x* and *y* are coordinates of the leftmost lower vertex of a rectangle and *a* and *b* are the lengths of the rectangle along the x- and y-axes, respectively.

**Output.** Two integers separated by one space. The first integer should be equal to the count of rectangles in the longest sequence, described above. The second integer should be equal to the count of all the longest sequences.

**Constraints:** $1 < N < 10\,000$. All the coordinates and lengths in the input are positive integers less than 10 000.

**Example**

**Input**

```
5
2 2 6 6
3 3 1 1
10 1 1 1
10 10 8 8
11 11 2 2
```

**Output**

```
2 2
```