Segments

There are N horizontal line segments in the plane. The ith segment has some height h_i (which may be negative) and runs from $x = a_i$ to $x = b_i$ ($a_i < b_i$). Segments do not contain their endpoints. You must draw a set of vertical lines (note *lines* and not *line segments*) so that every given horizontal segment is intersected at least once and at most R times by vertical lines in such a way that R is minimized.

Input

The first line of the input is N ($1 \leq N \leq 400$), the number of horizontal line segments. N lines then follow, where the ith line is "a_i b_i h_i". Each of a_i,b_i,h_i are 32-bit signed integers. Horizontal segments may overlap.

Output

Your output should consist of a single integer, the smallest value of R that is achievable, followed by a newline.

Example

Input:
```
3
0 1 5
0 2 -2
1 2 7
```

Output:
```
2
```