Programming component for Homework #2

This is the same problem that was discussed in the problem session on 27th Aug. (This problem will be graded for correctness and running time)

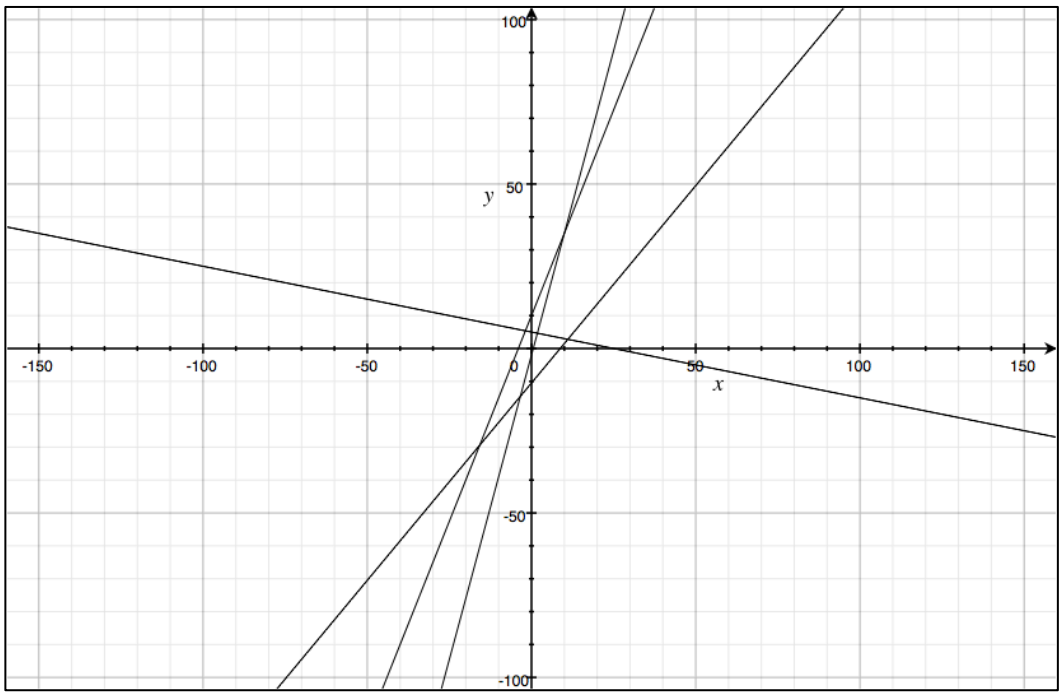
Hidden Surface Removal: You are given *n* non-vertical lines on a plane. A line is said to be "visible" if there is some x-coordinate at which this line is the uppermost line. Give an algorithm that outputs all the "visible" lines.

INPUT: The first line in the input file is *n*. This is followed by the description of the *n* lines. Any line on a plane can be written as **y=mx+c**. The description of a line is **m** followed by **c** (separated by :). Below we give an example input file ("input.txt"):

4
2.5:10.0
3.7:-2.0
1.2:-10.5
-0.2:5.0

OUTPUT: The output should be the visible lines ordered as per line numbering. Below is the output file ("output.txt") for the above input. Note that the 1st line, 2nd line, and the 4th line are visible for the above input.

1,2,4



Input lines