Please complete the following task by no later than
Tuesday September 20, 2016 @ 3PM Pacific Standard Time.

You're part of a mission to explore a group of asteroids. These asteroids are well behaved in that they all move in the same plane and are static to one another.

A space craft, equipped with measuring devices, will land on one of the asteroids to perform all sorts of experiments.

It's your task to choose the ideal asteroid to land on such that from that vantage point the system can monitor the whole asteroid constellation within the smallest viewing angle.

Input:

A text file. The first line contains a single integer, N the number of asteroids. The following N lines contain integer X and Y coordinates of the asteroids separated by spaces.

Output:

On the console. Two integers, X and Y, separated by a space, that are the coordinates of the ideal asteroid to land on.

Example:

```
Input:
3
0 0
1 1
10 0

Output:
10 0
```

Format:

Please complete this task in either Python or C++. In both cases you should provide the full source code (if you have multiple source files, use: ***tar cvzf solution.tgz <source dir>****, to create a zipped archive file). The source code is everything you created to complete this project according to good practices.*

In case your solution is in Python, it should be executable using the command: ***python solution.py <input file>*** *(Python version 2.7). If you require external modules, they have to be installable using* ***pip****.*

We prefer a solution in Python.

In case your solution is in C++, it should be compilable with the command: ***g++ -o solution solution.cpp*** *(g++ version 4.7.2), and executable as:* ***solution <input file>****. If you require external libraries, please be specific. External commercial libraries are not allowed.*

Please email your solution and any further documentation that you deem necessary to popdebeeck@key.net .