# 1376 - I2P CS 2017 Fall Chen Final Exam

Scoreboard (/contest/scoreboard/1376/)

| Time | | |
|---|---|---|
| 2018/01/08 15:30:00 | Contest Ended | 2018/01/08 19:20:00 |

Clarification

| # | Problem | Asker | Description | Reply | Replier | Reply Time | For all team |
|---|---|---|---|---|---|---|---|
| 1 | 11790 - Secret Letter | judgevllab | 考試剩不到15分鐘囉~ 保握第一筆測資 | 真的是範測 | judgevllab | 2018/01/08 18:44:44 | ✔ |

Overview Problem

# 11775 - Final Exam - Problem A

Status (/status/?pid=11775) | Limits Submit (/users/submit/11775)

## Description

## Problem A - Homework

Roy Feng (馮謙) is a freshman at the Department of Computer Science, NTHU. This semester he takes the course "introduction to Programming." The professor (naughty HT) may give multiple assignments after a class, and each assignment may have a different deadline.

To become a top-level programmer, every day Roy completes at most one assignment as follows. Let ***S*** be the set of all unfinished assignments whose deadline has not yet passed. If ***S*** is empty, Roy will go out to find his “missing” girlfriend. Otherwise, his will *arbitrarily* pick an assignment ***A*** among ***S*** and complete it. With such a strategy, Roy might not be able to complete all assignments.

Given the schedule of assignments, your task is to compute the minimum and the maximum numbers of assignments Roy will be able to complete.

## Input

The input consists of a single test case in the following format.

***n***

***$s_1$ $t_1$***

***$s_2$ $t_2$***

***...***

***...***

***$s_n$ $t_n$***

The first line contains an integer ***n*** satisfying ***1 ≤ n ≤ 100***. ***n*** denotes the total number of assignments of the course. The next ***n*** lines show the schedule of assignments. The ***i***-th line of them contains two integers ***$s_i$*** and ***$t_i$*** satisfying ***1 ≤ $s_i$ ≤ $t_i$ ≤ 100***, which mean that the ***i***-th assignment is given on the ***$s_i$*** -th day of the semester, and its deadline is the end of the ***$t_i$*** -th day.

## Output

Print the minimum number and the maximum number of assignments Roy will be able to complete.

## Sample Input

Download (data:text/plain;charset=utf-8,5%0D%0A1%202%0D%0A1%201%0D%0A5%205%0D%0A5%205%0D%0A5%205)

```
5
1 2
1 1
5 5
5 5
5 5
```

## Sample Output

Download (data:text/plain;charset=utf-8,2%203%0D%0A)

```
2 3
```

## Tags

## Discuss