

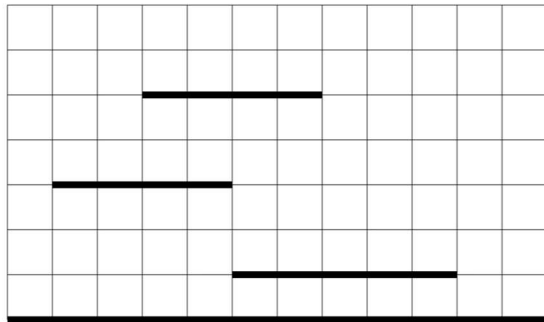
## Debugging exercise – fix the code, changing as little as possible

### COCI '07 Regional #1 Platforme

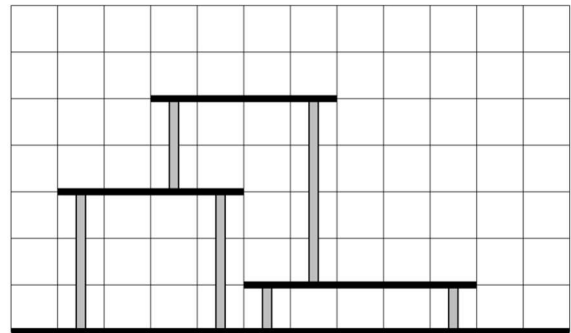
A level is being designed for a new platform game. The locations of the platforms have been chosen. Contrary to popular opinion, platforms can't float in the air, but need pillars for support. More precisely, each of the two ends of the platform needs to be supported by a **pillar standing on the floor or on a different platform**.

You are given the locations of the platforms in a coordinate system as in the left image below. Each platform's location is determined by its altitude (vertical distance from the ground) and the start and end coordinates in the horizontal direction. Each support pillar is placed **half a unit** from the end of a platform, as in the right image below.

Determine the total length of pillars needed to support all the platforms.



Example level with three platforms. The lowest platform is at altitude 1, the second lowest at altitude 3 and the third at altitude 5.



The total length of pillars needed to support all platforms is 14.

### Input Specification:

The first line of input is the number of platforms.

Each of the subsequent  $n$  lines contains the position of one platform designated by three coordinates:  $y$ ,  $x_1$  and  $x_2$ .  $y$  designates the altitude,  $x_1$  and  $x_2$  are the horizontal coordinates. You may assume all coordinates are positive integers and  $x_2 > x_1 + 1$  (that is, the length of each platform is at least 2). You may also assume the user will give valid input such that no two platforms will overlap.

### Output Specification

Output the total length of pillars needed to support all the platforms.

**Sample Input-1**

3

1 5 10

3 1 5

5 3 7

**Sample Output-1**

14

**Sample Input-2**

5

50 50 90

40 40 80

30 30 70

20 20 60

10 10 50

**Sample Output-2**

200