

## **Tower**

Input File: tower.txt

You are attempting to build a tower with several three-dimensional blocks in your collection of rectangular prisms. You want to know the tallest tower you can build, given that each brick must be equal or less in both volume and height than the brick immediately below it. You can choose to not use bricks if desired, and bricks may be oriented in any fashion.

### **Input:**

An integer  $x$  stating the number of blocks.

For the next  $x$  lines:

Three space-separated integers, stating the dimensions of the block.

### **Output:**

The height of the tallest constructable tower following the above rules.

### **Example Input:**

```
6
1 1 1
2 2 2
4 10 4
8 6 3
5 6 7
20 20 20
```

### **Example Output:**

```
41
```