# Coding Area



## Overlapping Boxes

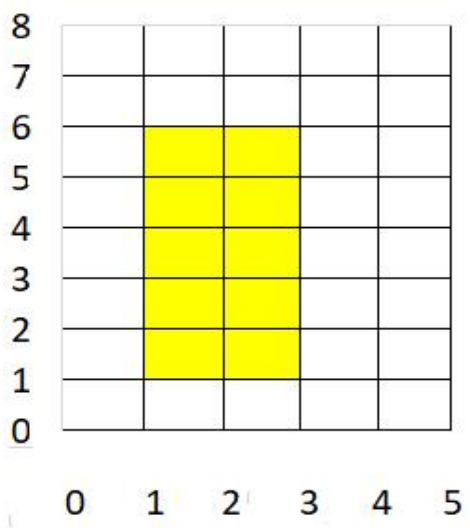
### Problem Description

There are N rectangular boxes(Bi) and each has a special value(Power) Pi. These rectangular boxes are placed in the first quadrants of the x-y plane.

These boxes are represented by two coordinates,bottom-left and top-right.

Example:

Below rectangle(highlighted with yellow) is represented as (1,1) i.e. bottom-left and (3,6) i.e. top-right




If two boxes(B1 & B2 with special value P1 & P2 respectively) overlap each other, then the special value of the common area is P1+P2.

Find the total area with maximum Power.

### Constraints

1<=N<=10^5

0<=x,y <= 10^4 i.e.the lowest co-ordinate of bottom-left corner is (0,0) and the highest coordinate of top-right corner is (10000,10000)

1<=P<=100

### Input Format

The first line contains the number of boxes N

In next N lines, each line contains five integers where

The first two integers represent the (x, y) coordinates of bottom-left corner

Next two integers represent the (x, y) coordinates of top-right corner respectively

The last integer represents the special value or power, P

## Output

Total area with maximum power

## Test Case

## Explanation

**Example 1**

2

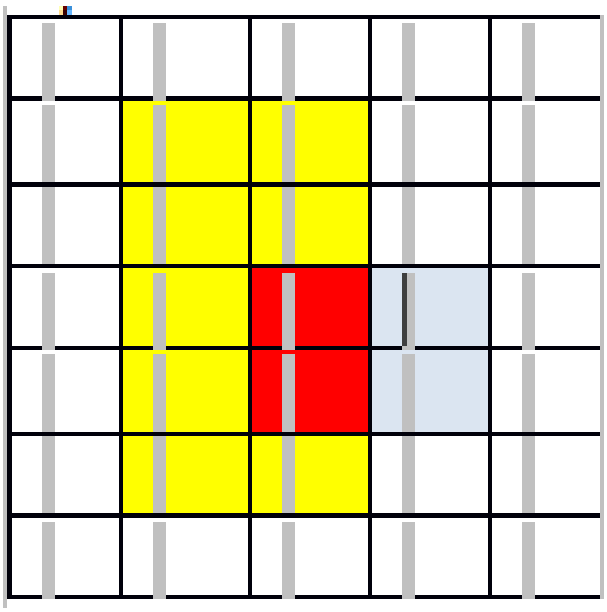
1 1 3 6 5

2 2 4 4 8

Sample output #1

2

Explanation #1



The area highlighted with red has the highest value of P and its area is 2

**Example 2**

5

21 46 38 56 13

26 28 47 38 8

18 32 38 38 5

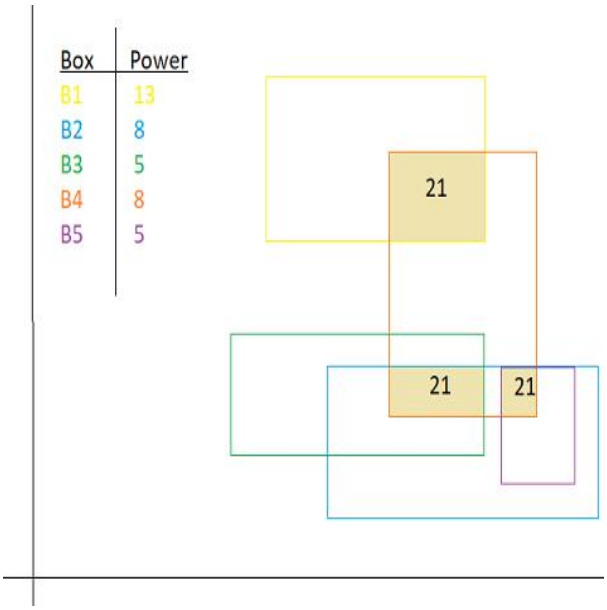
31 35 42 51 8

39 31 45 38 5

output

65

Explanation #1




Above image is only for illustration. Not a scaled image.

Total Area with P=21 is 65.

## Upload Solution [ Question : F ]

☐ I, **chukka bharath** confirm that the answer submitted is my own.

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