Overlapping Boxes

Problem Description

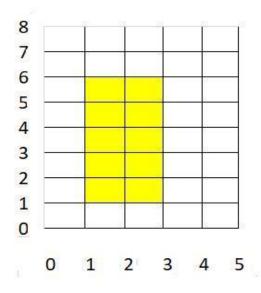
There are N rectangular boxes(Bi) and each has a special value(Power) Pi. These rectangular boxes are placed in the first quadrant of the x-y plane.

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

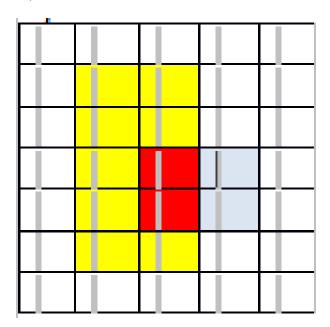
11365

22448

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

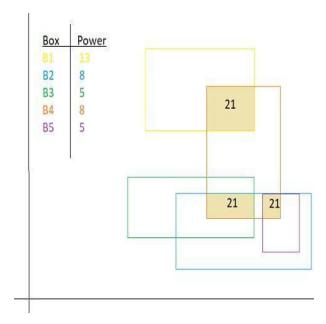
31 35 42 51 8

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.