



Ugly lines

Task ID: lines	Session: Friday	Points: 100
Memory limit: 16MB	Time limit: seconds	input/output: stdin/stdout

Marek loves mathematics, especially geometry. Once he was bored, he took his favourite ruler and drew horizontal and vertical line segments. After several hours he took his paper and look at it. He spot a rectangle. No, 2 rectangles. 3,4,... 1347 rectangles. But he was not sure, so he started counting from beginning and counted 1374 rectangles. He was confused. Maybe he first time forgot to count something, or the second time he counted something twice. Help Marek and find how many rectangles he has drawn.

Task

Your task is to compute the total number of rectangles formed by the line segments.

Input description

The first line of the input contains the number of line segments N , $4 \leq N \leq 800$. Next N lines contains four number x_1, y_1, x_2, y_2 , $-1\ 000\ 000\ 000 \leq x_1, y_1, x_2, y_2 \leq 1\ 000\ 000\ 000$. Here x_1, y_1 is start of the line segment and x_2, y_2 is the end of the line segment. You may assume that every line segment is parallel to the x-axis or to the y-axis.

Output description

Your output should contain a single line with the number of rectangles.

Examples

input

```

8
0 0 0 2
1 0 1 1
2 0 2 2
3 0 3 1
4 0 4 1
0 0 3 0
2 0 5 0
0 1 6 1
    
```

