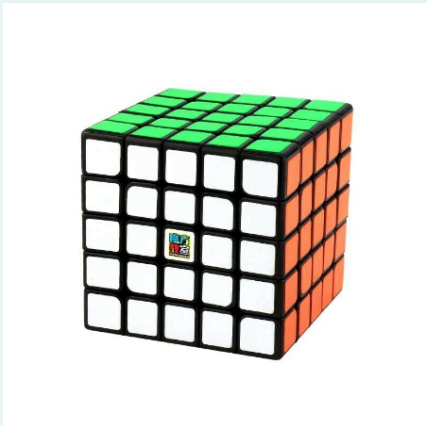You are creating a Bomber Man 3D with the field of size 5x5x5 (it is like rubik 5x5x5 as picture below).

The rule is a player can put a bomb in any cell of the field. When a bomb explores, it will destroy all cells to the edge in 6 directions (i.e., up, down, left, right, front, back).

Your task is to write a program to count number of destroyed cells in the field when number of bombs and position of bombs are provided.

Input

The first line of the input is a number of bomb in the field.

The following lines are position of each bomb located in the field.

Output

The output is the total number of destroyed cells in the field.

For example:

Input	Result
2 0 0 0 2 3 4	26
3 1 1 2 0 3 4 2 1 3	37

	Input	Expected	Got	
✔	2 0 0 0 2 3 4	26	26	✔
✔	3 1 1 2 0 3 4 2 1 3	37	37	✔
✔	5 1 2 0 0 0 0 4 3 1 2 2 1 0 2 4	54	54	✔
✔	10 1 2 0 0 0 0 4 3 1 2 2 1 0 2 4 1 1 1 3 2 3 2 2 2 4 4 4 4 0 1	86	86	✔

✔ 10 84 84 ✔
3 1 2
4 3 4
3 3 3
2 1 4
0 1 0
4 0 2
3 0 1
4 2 0
0 1 2
3 4 2