

Competitive Programming SS23

Submit until end of contest



Problem: cubes (1.0 second timelimit)

“Setz dich nicht so nah vor den Fernseher - du bekommst noch viereckige Augen!”
“Don’t sit so close to the TV - you’ll get square eyes!”

You were told often enough by your parents, but of course you didn’t believe them. Now, staring on computer screen all day to solve competitive programming tasks, the threat has turned into bitter reality.

You only see the world as $1\text{cm} \times 1\text{cm} \times 1\text{cm}$ large aligned blocks, even after switching profession to be a meteorologist, your sight hasn’t cleared.

One day, your new boss asks you to calculate the surface area of a large cloud on the sky, so the National Weather Modification Service can shoot the right amount of Silver iodide into the sky to let the cloud rain down.

Can you calculate the surface area of the water drops in the cloud, which you only see as little cubes?

Input In the first line, you get $n \leq 10^4$ - number of water drop blocks. In every one in the next n lines you get a list of integer coordinates (x, y, z) of each of the water blocks. The coordinates are integers in the range $0, 10^{12}$

Output The surface area of the water drops in the cloud.

Sample input

```
2
1 1 1
1 1 2
```

Sample output

```
10
```