

PW - C // Communist Neighborhood

Zhejiang finally succeeded in conquering Canada and decides to make the country communist. Zhejiang made it a rule that all houses need to be watched by the "Fortnites," an elite branch of police assigned to "watch and observe" civilians. Anish is hiding a stash of Dominos pizza coupons in which he does not want to share with anyone else. Since his house is in a watch zone, Anish wants to move houses so he can keep all the pizza to himself. Given a list of house locations and the locations of the fortiniters, output the # of possible places Anish can be safe in.

Input Specification:

The first line will contain the number L , the # of possible houses Anish can go to. The next L lines will contain the coordinates of the houses space-separated. The next line will contain N , the number of Fortnites. The next N lines will contain the coordinates of the Fortnites and their watch radius in the neighborhood space-separated.

Output Specification:

Output the # of possible places Anish can be safe in.

Sample Input:

```
3
0 0
30 3
-10 -5
1
-5 -5 6
```

Sample Output:

```
2
```

Sample Input:

```
1
0 0
1
3 4 6
```

Sample Output:

```
0
```