Land Buying

You are planning to buy a piece of land from your city's famous landlord who has a large farm. The landlord has his whims and is willing to sell only square pieces of land to you. Furthermore, there are designated poles in his farm at different locations and he is willing to sell a piece of land which is marked by 4 poles if that happens to be a square piece of land. Due to the COVID, he is unable to take you to the farm in person. Instead he has provided you digitally given the location of all poles (integer coordinates x and y, per pole). You are interested in purchasing a plot with the maximum area. Write a program which finds out whether you can buy a piece of land and print the area of the land that you will buy.

Input Format

1. The first line contains ***n***, the number of points.
2. The next ***n*** lines contains ***n*** points of the form (xi , yi)

Constraints

1. **n** <= 2000
2. -30000 <= **xi** <= 30000.
3. -30000 <= **yi** <= 30000.
4. Points are distinct integers.

Output Format

output the maximum area of a square Land.
if no such square is possible output **NO**

Sample Input 0

```
7
2 2
4 2
2 4
4 4
6 2
6 6
2 6
```

Sample Output 0

```
16
```

Explanation 0

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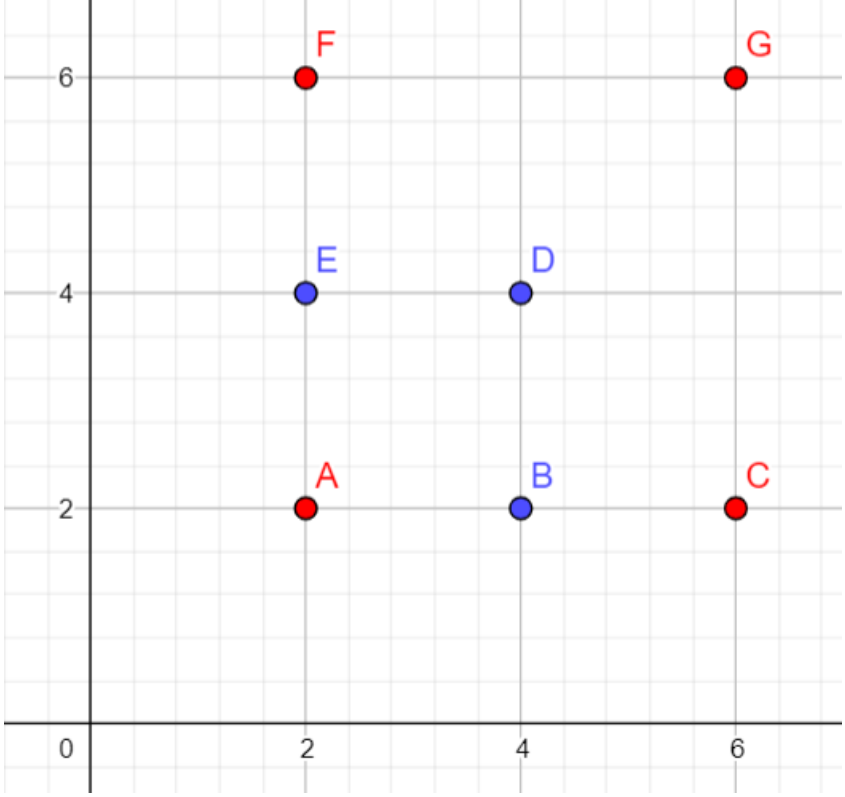

The maximum area square occurs at (2,2), (6,2), (6,6), (2,6).

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