Task 14: **Battle Bunkers**

[500 points]

Grand Moff Tarkin has built bunkers on the planet Endor to house Imperial scouts. All the bunkers have been built, so Tarkin has hired an engineer to build straight-line tunnels to connect the bunkers. Unfortunately for Tarkin, the engineer is a Rebel sympathizer who intends to make the project as expensive as possible.

Problem Statement

Given the locations of the `N` bunkers on a 2-D Euclidean plane, help the engineer plan `N-1` straight-line tunnels such that the total cost of the project is maximized and all the bunkers are connected. It costs $\$x^2$ for the engineer to build a tunnel of length x. Each tunnel starts at a bunker and ends at a bunker.

Input Format

`N`, the number of bunkers, followed by the coordinates of each bunker

Input Constraints

- $0 < N < 10,000$

Output Format

The maximum total cost of the tunnel system.

Sample Input

```
3
0 1
5 5
2 3
```

Sample Output

```
54
```