# Đế chế

### **English**

#### <u>Vietnamese</u>

An empire is building a network for its own planets. The empire consists of N planets, represented as points in the 3D space. The cost of connecting planet A and planet B is min{|xA - xB|, |yA - yB|, |zA - zB|} with (xA, yA, zA), (xB, yB, zB) are coordinates of planet A, B in space. The empire is planning to build N - 1 connection and the requirement is that all planets are connected with each other and the cost is minimized.

## Input

- Number of planets N (N < 100001).
- Next N lines, one line represents one coordiate of a planet.

# Output

Only the minimum cost.

## Example

#### Input

5 11 -15 -15 14 -5 -15 -1 -1 -5 10 -4 -1 19 -4 19

#### Output

4