Day 10 Exercise

Problem

Create a program that connects **N** islands via bridges such that the total length of all the bridges is **minimized** and outputs the said minimum cost. Two islands are connected if there is a sequence of bridges from the first island to the second (or vice versa). A bridge bidirectionally connects two islands. Each island is represented by a two-dimensional point (i.e., assume point-mass islands).

Notes

- Islands will never occupy the same point
- $1 \leq N \leq 1000$
- $-10000 \leq x, y \leq 10000$
- x and y may be fractional numbers
- Do not use built-in C++ STL containers

Input format (`input.txt`)

```
<N>
<x of island 1> <y of island 1>
<x of island 2> <y of island 2>
...
<x of island N> <y of island N>
```