(Adv.) Competitive Programming

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Problem: whompingwillow (1 second timelimit)

The Whomping Willow[1] is one of the oldest trees at the grounds of Hogwarts and a lot of ants are living on this tree (they have their homes on the leafs or somewhere on the branches).

In a case of an emergency, e.g. when one of the Weasley children flies a car into the tree, the ants want to coordinate a counter-strike. For this, the ants have to talk to all other ants as fast as possible. To figure out the response time for their attack, the ant king wants to know the distance between the two ant homes which are farthest away from each other. Therefore he asks all ants to track the distance from their homes to their neighbouring homes and then the ant king asks Luna to determine the longest distance between two ant homes. Because Luna has to take care of the unicorns, she asks you to solve this task.

Input The first line of the input contains the number of ant homes n ($0 \leq n \leq 25000$). The following $n-1$ lines contain three numbers, a_i b_i d_i (d_i is the distance from a_i to b_i - you can assume that the distance from b_i to a_i is the same). The result will be smaller than $2 * 10^9$.

Output Please just print a single line with the distance between the two ant homes, which have the farthest distance.

Sample input

```
6
5 2 6
1 0 10
5 3 7
5 4 6
3 1 8
```

Sample output

```
31
```

[1] In german: Peitschende Weide

```
10
4 9 6
1 7 18
4 6 10
3 2 13
6 7 19
0 2 20
0 5 4
3 6 6
4 8 20
```

```
80
```