Immortal Victory

Time Limit per Test: 1 sec

Memory Limit per Test: 256 megabytes

Problem Statement

Once upon a time, there lived a King named DD. DD was captured by another king named LL. The victory was such a great one that LL decided to carve a scene of DD's defeat on a mountain. So he had to find the best place to make his victory immortal!

He decided to visit all *n* cities of his kingdom to find the best available mountain, but after the recent war he was too tired and didn't want to traverse a lot. So he wanted to visit each of these *n* cities at least once with smallest possible traverse. Cities are connected with bidirectional roads. You can go from any city to any other one using these roads and there is a unique path between each two cities.

All cities are numbered 1 to *n*. LL is currently in the city 1 and he wants to visit all other cities with minimum possible traverse. He can finish his travels in any city.

Help LL find how much he should travel.

Input

First line contains a single natural number n ($1 \leq n \leq 10^4$) - the number of cities.
Next $n - 1$ lines contain 3 integer numbers each x_i, y_i and w_i
($1 \leq x_i, y_i \leq n, 0 \leq w_i \leq 10^4$). x_i and y_i are two ends of a road and w_i is the length of that road.

Output

A single integer number, the minimal length of LL's travel.

Sample Testcases

INPUT
3
1 2 3
2 3 4

OUTPUT
7