

# Distribution Center

ABC company is doing a research to turn one of their  $n$  warehouses into a distribution center. These warehouses are connected by  $n-1$  path (connected to other warehouses). Each path has a length. Your task is to find that distribution center so that the total length from the center to other warehouses is minimum.

## Input

The first line contains the number of warehouses  $n$  ( $1 \leq n \leq 10^5$ )

Each of the next  $n$  lines contains 3 integers:  $u, v$  representing an edge between  $u$  and  $v$  ( $0 \leq u, v \leq n$ ) and  $l$  representing length of  $uv$  ( $l \leq 10^5$ ).

## Output

Print out a the minimum total length.

Sample

Input	Output
5 0 1 5 1 2 1 2 3 3 1 4 2	12