# Shortest time without stopping

We know some information about a tram line: the distance of the stops from the previous stop, the arrival and departure times at a stop (only in one direction, the tram starts at time 0). If the arrival and departure times for a stop is the same, it means that the tram does not stop at that stop.

Write a program that gives the shortest interval of time in which the tram does not stop.

## Input

The first line of the *standard input* contains the count of stops ($1 \leq N \leq 100$). The next $N$ lines each contain the distance from the previous stop ($1 \leq D_i \leq 6000$), and arrival ($1 \leq Arr_i \leq 2000$) and departure ($Arr_i \leq Dep_i \leq 2000$) times at a stop.

## Output

The first line of the *standard output* should contain the shortest interval of time in which the tram does not stop.

## Example

| *Input* | *Output* |
|---|---|
| 5<br>300 10 15<br>2000 30 30<br>1000 40 42<br>500 48 58<br>400 63 63 | 5 |

## Limits

Time limit: 0.1 second

Memory limit: 32 MB

Evaluation: In 40% of tests, the count of data is $\leq 20$