

Problem F. Interval Graph

Input file: `standard input`
Output file: `standard output`
Time limit: 3 seconds
Memory limit: 1024 megabytes

You are given N closed intervals. The i -th interval has the range $[s_i, e_i]$, and has a positive integer weight w_i . Consider the undirected graph of N vertices, where each vertex corresponds to an interval, and there exists an edge between two vertices if and only if the corresponding pair of intervals has a nonempty intersection. For a given list of intervals, we call this graph the *interval graph*.

Jaehyun is addicted to problems about trees and queries, so he wants the graph to be acyclic. To accomplish this, he can delete zero or more intervals. Jaehyun is lazy, so over all possible ways to delete intervals, he will select the way which minimizes the weight of the intervals he has to delete. Print the weight of the remaining intervals after he has made the interval graph acyclic.

Input

The first line contains the single integer N ($1 \leq N \leq 250\,000$).

The next N lines contain three space-separated integers s_i, e_i, w_i ($1 \leq s_i \leq e_i \leq 500\,000$, $1 \leq w_i \leq 10^{12}$).

Output

Print the weight of the remaining intervals after Jaehyun's deletions.

Examples

standard input	standard output
3 1 3 10 3 5 20 5 7 30	60
3 1 3 1 2 3 2 3 3 3	5