

Call Me Call Me

Input file: **standard input**
Output file: **standard output**
Time limit: 15 seconds
Memory limit: 1024 megabytes

Bobo is going to organize a conference. He has a list of n people, and decides to call them one by one to invite them to the conference. However, people are only likely to attend a conference with enough acquaintances, that's why the i -th people say,

“Call me and I'll attend the conference when there are **at least** k_i people in the interval $[l_i, r_i]$ who already decided to attend!”

Bobo wonders, what's the largest number of people he can invite to the conference?

Input

The first line contains an integer n ($1 \leq n \leq 4 \times 10^5$), denoting the number of people on the list.

Then n lines follow. The i -th ($1 \leq i \leq n$) line contains three integers l_i, r_i, k_i ($1 \leq l_i \leq r_i \leq n, 0 \leq k_i \leq n$).

Output

Output an integer in one line, denoting the largest number of people Bob can invite to the conference.

Examples

standard input	standard output
3 2 3 2 2 3 1 2 2 0	3
3 2 3 1 2 3 2 2 2 0	2

Note

For the first sample test, Bob can invite people in the order of (3, 2, 1), so that all three people will attend the conference.

For the second sample test, after inviting the third person and the first person in order, the second person will reject Bobo's invitation as his/her requirement is not met.