

Task «Task planning»

There are some set of tasks and one executor. It takes a unit of time to complete one task. Jobs can be executed starting from time 0. Each job has two characteristics: deadline d_i and fine w_i . If the job has not been completed by time d_i , a fine of w_i is charged. It is required to complete a certain number of tasks in such a way as to minimize the total penalty received.

Input format

The first line of the input file contains a natural number n – the number of jobs ($1 \leq n \leq 100'000$).

The next n lines contain two space-separated integers – d_i and w_i ($1 \leq d_i, w_i \leq 10^9$).

Output format

Print one number — the minimum total penalty.

Sample input:

```
2
1 1
1 2
```

Sample output:

```
1
```