P. No Time for Dragons

time limit per test: 2 seconds❓
memory limit per test: 256 megabytes
input: standard input
output: standard output

One fairy king hated dragons to death. Not only that these monsters burn whole villages to ashes, kidnap princesses and guard treasures that they don't need at all, but they are also mentioned in statements of programming problems very often. To end their tyranny, he decided to recruit an army and destroy these damned creatures once and forever.

The king found out that there are n dragons in total, and to defeat the i-th of them he needs an army of a_i soldiers, b_i of which will be killed during the battle. Now he wants to know the minimal number of soldiers he needs to recruit in order to kill all the dragons. The king doesn't care about the order of battles: the only thing that matters is that none of the dragons will be left alive.

Input
The first line contains a single integer n $(1 \leq n \leq 2 \cdot 10^5)$ — the number of dragons.

Each of the next n lines contains two space-separated integers: a_i and b_i $(1 \leq b_i \leq a_i \leq 10^9)$ — the number of soldiers needed to defeat the i-th dragon, and the number of soldiers that will be killed in the battle against him.

Output
Output a single integer — the minimal number of soldiers that is sufficient to kill all the dragons.

Examples

input	Copy
2 7 4 5 1	

output	Copy
8	

input	Copy
3 4 1 6 4 5 3	

output	Copy
10	

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Group website

→ **Group Contests** ⌄

- Sheet #10 (General Hard)
- Sheet #9 (General medium)
- Sheet #8 (General easy)
- Sheet #7 (Recursion)
- Sheet #6 (Math - Geometry)
- Sheet #5 (Functions)
- Sheet #4 (Strings)
- Contest #3.1
- Sheet #3 (Arrays)
- Contest #2
- Sheet #2 (Loops)
- Contest #1
- Sheet #1 (Data type - Conditions)

Sheet #10 (General Hard)

Finished

Practice

⭐

→ **About Time Scaling** ⌄

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the link.