

3. round, 19. December 2009.

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Mirkos village has only one long street stretching from east to west with M houses. Each house has a unique house number, starting with 1 and ending with M .

Recent storm took out most phone lines so the mayor financed construction of a new one. Mirko is interested in the popularity of this new phone network, so he infiltrated its construction and placed special detectors on some points.

Detector detects **any** phone call made between two houses, as long as one of them is **eastward** and the other **westward** from the point the detector is installed.

At the end of the first month, Mirko removed all detectors and now wonders what is the **smallest number** of phone calls that could have been made during that month.

INPUT

The first line of input contains two integers N ($1 \leq N \leq 100\,000$), number of detectors, and M ($N < M \leq 1\,000\,000\,000$), number of houses in the village.

Next N lines contains two numbers each: P_i ($1 \leq P_i < M$), and C_i ($1 \leq C_i \leq 1\,000\,000\,000$), the position and total number of phone calls detected by detector numbered i . We say that a detector is on position P_i if and only if he is between houses numbered P_i and P_i+1 .

There will never be more than one detector on the same position.

OUTPUT

Output a single integer, the minimal number of phone calls made.

GRADING

In test cases worth 50% points N and C will be smaller than 1 000.

SAMPLE TESTS

input 3 4 3 1 2 2 1 1 output 2	input 2 3 1 23 2 17 output 23	input 3 9 7 2 8 3 3 4 output 5
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