

Desert crossing

Time limit: 2 sec.

Memory limit: 512MB

Description

You are planning to cross l kilometers of the desert with a truck. There are initially w liters of gas in the truck, where a liter of gas is needed to travel a kilometer with the truck. In the desert, there are n gas stations where you can buy some gas. The i -th gas station is d_i kilometers away from the starting point (and $l - d_i$ kilometers away from finishing point), and sells gas for p_i dollars per liter. The starting point, finishing point, and the gas stations are all located in a straight line. Assuming that the truck can hold unlimited amount of gas at a time and there is unlimited amount of gas in each gas station, how much dollars are needed to cross the desert?

Input

The first line contains three integers n , l , and w . ($1 \leq n \leq 100000$, $1 \leq l, w \leq 1000000$)

The i -th line of the next n lines contains two integers d_i and p_i . ($1 \leq d_1 < d_2 < \dots < d_n \leq l-1$, $1 \leq p_i \leq 2000$)

It is guaranteed that crossing the desert is always possible.

Output

Print the minimum number of dollars needed to cross the desert.

Sample I/O

Input(s)	Output(s)
4 10 5 2 40 3 30 7 10 9 20	90