

Problem A

Cut The Sticks

Input file: *testdata.in*

Time limit: 3 seconds

Problem Description

Temmo have N sticks to cut. All of the sticks are placed parallel with the axis. The left side of the i -th stick is at the coordinate l_i , and the right side of that is at the coordinate r_i . For convenience you can treat these sticks as segments.

Temmo needs to make C cuts. The coordinate of each cut c_i must be integer, and between the left most coordinate of l_i and the right most coordinate of r_i (inclusive). And the distance between each pair of cuts must not be less than G . He wants to make the work easier, so he wants to cut the least sticks in these C cuts. The i -th stick is cut by the j -th cut if $l_i \leq c_j \leq r_i$. Denote w_i as the number of sticks would be cut in the i -th cut, can you tell him the minimum sum of all w_i ?

Technical Specification

- $1 \leq N \leq 10^4$
- $1 \leq G, C \leq 10$
- $1 \leq l_i, r_i \leq 2^{12}$
- All of the numbers are integers.

Input Format

There are at most 100 test cases in the input. Each test case starts with three numbers N , G , C in a line. Then followed by N lines, each of these lines contains two numbers l_i and r_i .

Output Format

For each test case output the minimum sum of w_i .

Sample Input

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3 1 2
2 5
3 6
7 9
```

Sample Output

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2
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