

Hydra

Input file: **standard input**
Output file: **standard output**
Time limit: 2 seconds
Memory limit: 1024 megabytes

Neko is fighting a long battle against the *Ocean Gangster*. The battle consists of a sequence of rounds, all numbered by positive integers.

Neko has two defensive abilities: **Metallization** and **Plating**. Both abilities initially have level 0.

At the beginning of each round, *Neko* may perform any number of upgrades:

- Pay x to increase the Metallization level by 1.
- Pay y to increase the Plating level by 1.

After all upgrades have been performed, the round is resolved in the following order:

1. Let the current Metallization and Plating levels be M and P , respectively. *Neko* gains $M + P$ points of armor.
2. If the *Ocean Gangster* deals b points of damage in this round, *Neko* loses $\max(0, b - M - P)$ health points.
3. At the end of the round, all armor gained in this round disappears. The Metallization level remains unchanged, while the Plating level becomes $\max(P - 1, 0)$.

The *Ocean Gangster* will make n attacks in total. The i -th attack occurs in round a_i and deals b_i points of damage. The attack rounds are given in strictly increasing order. The *Ocean Gangster* does not attack in any round that is not listed. Note that even if there is no attack in a round, the Plating level still changes according to the rule above at the end of that round.

As a genius gaming streamer, *Neko* wants to lose **no** health points to any attack. Find the minimum total cost required to achieve this goal.

Input

This problem contains multiple test cases.

The first line contains a positive integer T ($1 \leq T \leq 5 \times 10^5$), representing the number of test cases.

For each test case:

- The first line contains three integers n, x, y ($1 \leq n \leq 5 \times 10^5$, $1 \leq x, y \leq 10^9$), representing the number of attacks, the cost of increasing the Metallization level by 1, and the cost of increasing the Plating level by 1, respectively.
- The next n lines each contain two integers a_i, b_i ($1 \leq a_i, b_i \leq 10^9$), representing an attack of b_i damage made by the *Ocean Gangster* in round a_i .

It is guaranteed that the sum of n over all test cases does not exceed 5×10^5 , and that $a_1 < a_2 < \dots < a_n$.

Output

For each test case, output one line containing an integer representing the minimum cost required to lose no health points to any attack.

Example

standard input	standard output
2 3 5 2 1 3 10 5 20 2 3 100 1 1 5 2 5 3 5	18 7

Note

In the first test case, *Neko* can first increase the Metallization level to 2 in round 1:

- In round 1, increase the Plating level to 1, obtaining $2 + 1 = 3$ points of armor in total.
- In round 10, increase the Plating level to 3, obtaining $2 + 3 = 5$ points of armor in total.
- In round 20, the 2 points of armor provided by Metallization are sufficient.

The total cost is $2 \times 5 + (1 + 3) \times 2 = 18$.

In the second test case, *Neko* does not need to upgrade Metallization. In round 1, increase the Plating level to 5. At the end of this round, its level decreases to 4. In each of rounds 2 and 3, increase the Plating level by 1. This provides 5 points of armor in all three rounds, for a total cost of $5 + 1 + 1 = 7$.