

Invest

There are n cities. If the government invest in the i^{th} ($1 \leq i \leq n$) city a_i amount of money, it helps b_i students go to school. The government wants to help as many as students, but the fund is limited in the range from X to Y . Please help the government find the maximum number of students that the government can support with the fund ranging from X to Y .

Input

- The first line contains three integers n, X, Y ($1 \leq n \leq 35; 0 \leq X \leq Y \leq 10^{18}$).
- Line i^{th} in the next n lines contains two integers a_i và b_i ($1 \leq a_i, b_i \leq 10^{15}$).

Output

- A single integer – the maximum number of students.

Sample

INPUT	OUTPUT
3 6 8 3 10 7 3 8 2	3