

Contest Duration: 2025-06-14(Sat) 08:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250614T2100&p1=248>) - 2025-06-14(Sat) 09:40 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250614T2240&p1=248>) (local time) (100 minutes)

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E - Battles in a Row

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Time Limit: 2 sec / Memory Limit: 1024 MiB

Score : 450 points

Problem Statement

Takahashi is about to play a game where he fights N monsters in order. Initially, Takahashi's **health** is H and his **magic power** is M .

For the i -th monster he fights, he can choose one of the following actions:

- Fight without using magic. This can only be chosen when his health is at least A_i , and his health decreases by A_i and the monster is defeated.
- Fight using magic. This can only be chosen when his magic power is at least B_i , and his magic power decreases by B_i and the monster is defeated.

The game ends when all N monsters are defeated or when he cannot take any action. What is the maximum number of monsters he can defeat before the game ends?

Constraints

- $1 \leq N \leq 3000$
- $1 \leq H, M \leq 3000$
- $1 \leq A_i, B_i \leq 3000$

2025-06-16 (Mon)
23:44:53 -04:00

- All input values are integers.

Input

The input is given from Standard Input in the following format:

```
 $N$   $H$   $M$   
 $A_1$   $B_1$   
 $A_2$   $B_2$   
 $\vdots$   
 $A_N$   $B_N$ 
```

Output

Output the answer.

Sample Input 1

[Copy](#)

```
4 10 14  
5 8  
5 6  
7 9  
99 99
```

[Copy](#)

Sample Output 1

[Copy](#)

```
3
```

[Copy](#)

By taking the following actions, Takahashi can defeat 3 monsters before the game ends.

- Initially, his health is 10 and his magic power is 14.
- Fight the 1st monster without using magic. His health decreases by 5, becoming health 5 and magic power 14.
- Fight the 2nd monster without using magic. His health decreases by 5, becoming health 0 and magic power 14.
- Fight the 3rd monster using magic. His magic power decreases by 9, becoming health 0 and magic power 5.
- For the 4th monster, he cannot choose either action, so the game ends.

Sample Input 2

Copy

```
3 3000 3000
3 3
3 3
3 3
```

Copy

Sample Output 2

Copy

```
3
```

Copy

He may be able to defeat all monsters.

Sample Input 3

Copy

```
10 8 8
2 2
2 3
2 2
1 2
2 3
1 2
3 3
3 2
3 1
3 2
```

Copy

Sample Output 3

Copy

```
9
```

Copy

Language

Python (CPython 3.11.4) ▼

Source Code



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Auto Height

1 |

* at most 512 KiB

* Your source code will be saved as *Main.extension*.



Verifying...



Submit

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