

Contest Duration: 2025-06-14(Sat) 22:00 (<http://www.timeanddate.com/worldclock/fixedtime.html?iso=20250614T2100&p1=248>) - 2025-06-14(Sat) 23:40 (<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

- $1 \leq N \leq 3000$
- $1 \leq H, M \leq 3000$
- $1 \leq A_i, B_i \leq 3000$
- All input values are integers.

Input

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

```
N H M  
A1 B1  
A2 B2  
:  
AN BN
```

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

Copy
2026-01-02 (Fri)
05:25:33 +11:00

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

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](#)

```
'#telegram)
ire#url=https%3A%2F%2Fatcoder.jp%2Fcontests%2Fabc410%2Ftasks%2Fabc410_e%3Flang%3Den&title=E%
Row)
```

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