



06 : 23 : 35 : 11  
DAY HRS MIN SEC

# July Circuits '17

LIVE

Jul 28, 2017, 08:30 AM PDT - Aug 06, 2017, 08:30 AM PDT

INSTRUCTIONS

PROBLEMS

SUBMISSIONS

LEADERBOARD

ANALYTICS

JUDGE

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## Download file

Max. Marks: 100

Hasan wants to download a file from the internet, the file size is  $S$  MB, the internet speed available for Hasan is not fixed, it can be changed by time.

Hasan knows a list of times when the internet speed will be changed and the new speed for each time. more specifically Hasan has two arrays for length  $N$  which means:

starting from time  $T_0$  the internet speed is  $D_0$  MB per unit time. and starting from  $T_1$  the internet speed is  $D_1$  MB per unit time. and so on

it is provided that  $T_0=0$

Hasan wants the download duration be minimum possible (i.e. duration between starting of download and the end of download be minimum), note that Hasan can choose when to start the download but once it started it cannot be paused, it will continue until the end. Help Hasan by telling him what is the minimum possible duration that he can Achieve.

### Input:

First line contains two integers  $N$  and  $S$ .

the following  $N$  lines, each contains two integers  $T_i$  and  $D_i$

### Output:

Output a irreducible fraction, donating the minimum duration required to download the file if starting time is chosen optimally, in this format:  $a/b$

### Constraints:

- $1 \leq N \leq 100,000$
- $1 \leq D_i, S \leq 1,000,000$
- $0 \leq T_i \leq 1,000,000$
- $T_0=0$  and all values of  $T$  are strictly increasing

9

LIVE EVENTS

SAMPLE INPUT



```
3 8
0 1
3 2
5 1
```

SAMPLE OUTPUT



6/1

## Explanation

one optimal way is to start the download at  $T=0$

**Time Limit:** 1.0 sec(s) for each input file.

**Memory Limit:** 256 MB

**Source Limit:** 1024 KB

**Marking Scheme:** Marks are awarded if any testcase passes.

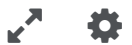
**Allowed Languages:** C, C++, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, JavaScript(Rhino), JavaScript(Node.js), Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave

## CODE EDITOR

Enter your code or [Upload your code](#) as file.

Save

C (gcc 5.4.0)



```
1 #include <stdio.h>
2
3 int main()
4 {
5     printf("Hello World!\n");
6     return 0;
7 }
8
```

4:1

☒ Provide custom input

Press Ctrl-space for autocomplete suggestions.

COMPILE & TEST

SUBMIT

 **Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

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