

SSU Online Contester :: 278. Fuel

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翻译

不翻译

278. Fuel

Time limit per test: 0.5 second(s)

Memory limit: 65536 kilobytes

input: standard

output: standard

A fuel station has infinite amount of each of N kinds of fuel. Each kind of fuel has density a_i , cost b_i and intensity c_i . m kilograms of such fuel has volume ma_i , intensity mc_i and costs mb_i dollars. Your car can store any mixture of different kinds of fuel such that the overall volume does not exceed A . You have B dollars. Your task is to determine the maximal overall intensity of the fuel you can buy. Note that you can buy any nonnegative amount of any kind of fuel, not necessarily an integer number of kilograms.

Input

The first line of the input contains three integers N , A , B ($1 \leq N \leq 75000$, $1 \leq A, B \leq 1000$). Each of the next N lines describes one kind of fuel. $i+1$ -st line contains three integers a_i , b_i , c_i ($0 \leq a_i, b_i, c_i \leq 100$).

OutputThe only line of the output must contain single number with at least 6 digits after the decimal point, being the maximal overall intensity.

Example(s)

sample input

```
2 1 1
1 2 6
2 1 6
```

sample output

4.000000

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