A. Supermarket

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

We often go to supermarkets to buy some fruits or vegetables, and on the tag there prints the price for a kilo. But in some supermarkets, when asked how much the items are, the clerk will say that a `yuan` for b kilos (You don't need to care about what "`yuan`" is), the same as a / b `yuan` for a kilo.

Now imagine you'd like to buy m kilos of apples. You've asked n supermarkets and got the prices. Find the minimum cost for those apples.

You can assume that there are enough apples in all supermarkets.

Input

The first line contains two positive integers n and m ($1 \le n \le 5\,000$, $1 \le m \le 100$), denoting that there are n supermarkets and you want to buy m kilos of apples.

The following n lines describe the information of the supermarkets. Each line contains two positive integers a, b ($1 \le a, b \le 100$), denoting that in this supermarket, you are supposed to pay a `yuan` for b kilos of apples.

Output

The only line, denoting the minimum cost for m kilos of apples. Please make sure that the absolute or relative error between your answer and the correct answer won't exceed 10^{-6}.

Formally, let your answer be x, and the jury's answer be y. Your answer is considered correct if .

Examples

input
3 5 1 2 3 4 1 3
output
1.66666667

input
2 1 99 100 98 99
output
0.98989899

Note

In the first sample, you are supposed to buy 5 kilos of apples in supermarket 3. The cost is $5 / 3$ `yuan`.

In the second sample, you are supposed to buy 1 kilo of apples in supermarket 2. The cost is $98 / 99$ `yuan`.