# Problem 1 – Raindrops

The **Raindear Forecast Agency** (**RFA**) is an organization founded by an old and kind grandma which wanted quality forecasts. The Agency has hired you to write a software which finds the Rain Coefficient, by calculating simple input data.

You will receive **N**, an integer – the **amount** of **regions**. Then you will receive the **density** – a floating-point number.

For **each region**, you will receive an input line in the following format:

“{raindropsCount} {squareMeters}”

The raindropsCount and the squareMeters will be integers. Your task is to **calculate** **the regional coefficient** by the following formula: raindropsCount / squareMeters

**NOTE**: The **regional coefficient** **should** be a **floating-point number**.

Your task is to **sum all regional coefficients**, and then **divide** it by the density, and **print** the **result**.   
If a **division** is **not possible**, just print the **sum** of **all regional coefficients**.

## Input

* On the **first input line** you will receive **N** – the **amount** of **regions**.
* On the **second input line** you will receive the **density**.
* On the **next N input lines** you will receive **information** about the **regions**.

## Output

* As output you must print the sum of all regional coefficients divided by the density.
* If a division is not possible you must print the sum of all regional coefficients.
* The output should be **rounded** and **printed** to **3 places** after the **decimal point**.

## Constraints

* The **amount** of **regions** – **N** will be an **integer** in **range [0, 100]**.
* The **density** will be a **floating-point number** in **range [0, 9]**.
* The **raindropsCount** will be an **integer** in **range [-231, 231]**.
* The **squareMeters** will be an **integer** in **range [1, 10000]**.
* Allowed working **time** / **memory**: **100ms** / **16MB**.

## Examples

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Comment** |
| 4  4  2000 10  1000 5  5000 2000  3000 30 | 125.625 | 2000 / 10 = 200  1000 / 5 = 200  5000 / 2000 = 2.5  3000 / 30 = 100  200 + 200 + 2.5 + 100 = 502.5  502.5 / 4 = 125.625 |
| 2  2  100000 50  200000 25 | 5000.000 | 100000 / 50 = 2000  200000 / 25 = 8000  2000 + 8000 = 10000  10000 / 2 = 5000  (rounded till 3rd symbol) = 5000.000 |

## Министерство на образованието и науката (МОН)

* Настоящият курс (презентации, примери, задачи, упражнения и др.) е разработен за нуждите на Национална програма "**Обучение за ИТ кариера**" на МОН за подготовка по професия "Приложен програмист".



* Курсът е базиран на учебно съдържание и методика, предоставени от **фондация "Софтуерен университет"** и се разпространява под **свободен** **лиценз CC-BY-NC-SA** (Creative Commons Attribution-Non-Commercial-Share-Alike 4.0 International).

