# Problem 2 – Vote For Me

Mayoral elections are coming and people should decide for whom to vote. Central Election Commission needs developers to write a program to calculate the results but they don’t have any, so they decided to try some of the young code wizards in SoftUni. But there’s a problem – everyone in SoftUni is so busy, so you are the one given the assignment.

Your task is to write a program that **calculates votes from the elections.** You’ll be given the following data:

* **The count of candidates.**
* **Population of the city** where they are running for mayors.
* For each candidate – **name** and **votes for him/her**.

You must **calculate** the **percentage of votes** (from the whole population) for each candidate. And find who the winner is.

For **each** candidate we should print on the console **his/her result** in format**:**

**“[Candidate’s name] have [percentage]%.”**

Then print who the winner is and his/her result in format:

**“The new mayor is [Candidate’s name] - [percentage]%”.**

At the end print the percentage of people didn’t vote:

**“[Percentage]% of the population didn't vote”.**

**Input**

The input data should be read from the console.

* At the **first line** you will be given the count of the candidates.
* At the **second line** you will be given the population of the city.
* The **next count \* 2 lines** you will be given:
  + **The candidate’s name.**
  + **Votes for him.**

The input data will always be valid and in the format described. There is no need to check it explicitly.

**Output**

The output should be printed on the console. It should consist:

* For each candidate:
  + **“[Candidate’s name] has [percentage]%.”**
* The winner and the result:
  + **“The new mayor is [Candidate’s name] - [percentage]%”**
* People who don’t vote:
  + **“[Percentage]% of the population didn't vote”**
* All percentages must be **rounded** to two digits after the decimal point

**Constraints**

* The population will be a valid integer in range [0…5000000]
* The count of the candidates will be a valid integer in range [2…50]
* The votes will be a valid integer greater than 0(zero) and the sum of the votes will not be more than the population.
* Two candidates will not receive equal amount of votes.
* The names of the candidates will be strings containing only English letters.
* Allowed working time for your program: 0.25 seconds.
* Allowed memory: 16 MB.

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| **Input** | **Output** | **Comments** |
| 4  1000000  Pesho  12442  Gosho  45334  Stamat  389234  Minka  123221 | Pesho has 1.24%.  Gosho has 4.53%.  Stamat has 38.92%.  Minka has 12.32%.  The new mayor is Stamat - 38.92%.  42.98% of the population didn't vote. | Pesho has 12442 votes => 1.24% from 100000(population)  100000(population) – 570231(the sum of all votes) = 429769(didn’t vote) -> 42.98% |