# C++ Fundamentals – Regular Exam

# 15 December 2024

You have to submit your solution here: <https://judge.softuni.org/Contests/5427/CPlusPlus-Fundamentals-Regular-Exam-15-December-2025>

# Swimming Championship

The swimming club "The Gold Delphin" participates in **a few-days-long championship**. As a club, it has a **sponsor** who will **cover a certain percentage** of its expenses depending on whether the swimmers finish the championship **successfully** or **not**.

Your task is to **keep track** of the **expenses**, as well as **the points** the team has **won** in the championship. Then, find out **if the swimmers have successfully finished** the championship and calculate **how much money the club is left to pay** after the sponsor covers his share.

For **each day of the championship,** **each swimmer** is charged a **hotel fee**.

In addition, the club pays a **participation fee** **for each swimmer, once** for the **whole championship**.

**Every day**, the swimmers together earn **points** for the **swum distance they made that day**. Also, every **day after the first one**, they get additional points added: **5% of the points they achieved the previous day**.

If **the club covers the point needed,** the **championship is finished successfully,** and their sponsor will **cover 25% of the expenses,** and **if they are not,** the sponsor will **only cover 10%**.

## Input

* **Days of the championship (n) -** an **integer** in the range **[1…10]**
* **Points that need to be covered -** an **integer** in the range **[1…1000]**
* **The count of the swimmers -** an **integer** in the range **[0…100]**
* **Hotel room price for a day** for **one swimmer -** a **real number** in the range **[0.00 – 1000.00]**
* **Participation fee per swimmer -** a **real number** in the range **[0.00 – 1000.00]**
* On the next **n** lines - the **points earned** for **each** of the **days** - a **real number** in the range **[0.00 - 1000.00]**

## Output

Print the money **left to pay by the club** and **if the championship was successful**.

* If the needed points **are covered**:

**"Money left to pay: {money} BGN.**

**The championship was successful!"**

* If the needed points are **not** **covered**:

**"Money left to pay: {money} BGN.**

**The championship was not successful."**

The **money** should be **formatted** **to the second decimal point**.

## Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 3  400  5  70.6  15.0  100.6  300.59  250.9 | Money left to pay: 850.50 BGN.  The championship was successful! |
| 2  600  3  100.8  50.5  100.68  80.1 | Money left to pay: 680.67 BGN.  The championship was not successful. |
| 3  500  5  100.9  50.1  100.5  301.0  80.0 | Money left to pay: 1323.00 BGN.  The championship was successful! |