# A test of "fundamentals of programming" 19 March 201 7 evening

## Task 2 Styrofoam

Write a program to calculate **how much money will remain or not to reach**for the order of styrofoam House**.** Program will **receive at the entrance**: **the budget** you have, **the area of the House**, **the number of Windows**, how many **square meters** are there **in one package** styrofoam and **the price of a package**.

From **the area of the House** must be **pulled out the surface area of all the Windows**, **each window has an area of 2.4 m2**. **To the quantity of** must **add 10% for wastage**. Then **calculate how much the package are required**. **. Example** : To **area 205 m2**and **a package of 20 m2**required **10.25 package  11 package**. After you calculate the price of all the styrofoam should be whether enough budget message or not.

### Login

From the console are read **5 lines**:

        First line – **budget** – **a real number** in the interval **[1.00... 10000.00]**

        Second row – **area of the House** – **a real number** in the interval **[1.00... 10000.00]**

        Third row- **number ups**– **an integer** in the range **[1. .. 100]**

        The fourth line – **how many** **square meters are there in one styrofoam package**– **a real number** in the interval **[1.00. .. 100.00]**

        5th row – **the price of a styrofoam package**– **a real number** in the interval **[1.00. .. 100.00]**

### Exit

The console is printed:

        If **the budget is sufficient** to print **two rows**:

o **"Spent: {the styrofoam insulation}"**

o **"Left: {remaining money}"**

        If **the budget is not sufficient** to print **one line**:

o **"Need more: {scarce money} "**

**Formatted to the second decimal place.**

### Sample input and output

|  |  |  |
| --- | --- | --- |
| **Login** | **Exit** | **Explanations** |
| 500  200  5  20  30 | Spent: 330.00  Left: 170.00 | **The area of the House**200 m2 **No**area of the **5 window** in 2.4 m2  200-5 \* 2.4 = **188m2**  **Add 10%**188 + 10% = **206.8m2**  **The required packages are**206.8 / 20 = 10.34  **11 package** in 30 LV = **330 EUR**  **330 < 500** **remain** 500 - 330 = **170 EUR** |
| **Login** | **Exit** | **Explanations** |
| 190.9  250.50  2  24.6  32.60 | Need more : 167.70 | **The area of the House**2 5 0 .5 m**2 without** the area of the **2 window**in 2.4 m2  2505 - 2\* 2.4 = **245.7m2**  **Add 10%**245.7 + 10% = **270.27m2**  **The required packages are**270.27/24.6 = 10.98  **11 package** \* 32.60 EUR = **$358.60**  **358.60 > 190.9** **do not reach** 358.6 -190.9 = **$167.70** |