Lab: Data Types, Variables and Simple Calculations

Submit your solutions here: https://judge.softuni.org/Contests/4627/Data-Types-Variables-and-Simple-Calculations-Exercise

1. Reversed Numbers

Write a program that:

- Reads three **floating-point numbers** from the console
- Print them in reversed order, each number on a **new line**

Examples

Input	Output
2 1 3	3 1 2
-2 1 3	3 1 -2
0 0 2	2 0 0

2. Centuries to Minutes

Write a program that:

- Reads an **integer number,** that represents centuries for conversion
- Convert centuries to years (1 century = 100 years)
- Convert years to days (1 year = 365.2422 days)
- Convert days to hours (1 day = 24 hours)
- Convert hours to minutes (1 hour = 60 minutes)
- Print converted data in the following format:

"{centuries} centuries = {years} years = {days} days = {hours} hours = {minutes} minutes"

Example

Input	Output
1	1 centuries = 100 years = 36524 days = 876576 hours = 52594560 minutes
5	5 centuries = 500 years = 182621 days = 4382904 hours = 262974240 minutes

3. Redecorating

Rumen wants to repaint the living room and has hired craftsmen for this purpose. Write **a program** that **calculates the cost of the repair,** taking the following **prices** for the calculation:

- **Protective nylon - 1.50 BGN per square meter**

- **Paint - 14.50 BGN per liter**
- **Paint thinner - 5.00 BGN per liter**

Just in case, to the **necessary** materials, Rumen wants **to** add **another 10%** of the amount of paint **and 2 square meters of nylon, also 0.40 leva for bags. The amount** paid to the craftsmen for **1 hour of work** is equal to **30% of the sum of all material costs.**

Input

The input is read from **the console** and contains **exactly 4 lines**:

1. **Required amount of nylon (in sq.m.)** - an integer number in the range [1... 100]
2. **Required amount of paint (in liters)** - an integer number in the range [1... 100]
3. **Quantity of thinner (in liters) -** integer number in the range [1... 30]
4. **Hours needed for the craftsmen to do the work** - an integer number in the range [1... 9]

Output

Print out only one line on the console:

- `"{the sum of all costs}"`

Example

Input	Exit	Comments
10 11 4 8	727.09	Nylon amount: (10 + 2) * 1.50 = **18 BGN** Amount for paint: (11 + 10%) * 14.50 = **175.45 BGN** Amount for thinner: 4 * 5.00 = **20.00 BGN** Amount for bags: **0.40 BGN** Total amount for materials: 18 + 175.45 + 20.00 + 0.40 = **213.85 BGN** Amount for craftsmen: (213.85 * 30%) * 8 = **513.24 BGN** Total amount: 213.85 + 513.24 = **727.09 BGN**
5 10 10 1	286.52	Amount for nylon: (5 + 2) * 1.50 = **10.50 BGN** Amount for paint: (10 + 10%) * 14.50 = **159.50 BGN** Amount for thinner: 10 * 5.00 = **50.00 BGN** Amount for bags: **0.40 BGN** Total amount for materials: 10.50 + 159.50 + 50.00 + **0.40 = 220.40 BGN** Amount for masters: (220.40 * 30%) * 1 = **66.12 BGN** Total: 220.40 + 66.12 = **286.52 BGN**

4. Food Delivery

The restaurant opens its doors and offers several menus at preferential prices:

- **Chicken menu – 10.35 lv.**
- **Menu with fish – 12.40 lv.**
- **Vegetarian menu – 8.15** lv.

Write a program that calculates how much it will cost a group of people to order takeaways.

The group will also order a dessert, the **price** of which is equal to **20% of the total bill** (excluding delivery).

The delivery price is **2.50** BGN and is **finally charged.**

Input

From the console read **3 lines**:

- **Number of chicken menus – integer in the range [0 ... 99]**
- **Number of menus with fish – integer in the range [0 ... 99]**

- **Number of vegetarian menus – an integer in the range [0 ... 99]**

Output

Print out only one line on the console: `"{order price}"`

Example

Input	Output	Comments
2 4 3	116.2	**Price for chicken menus: 2 pieces * 10.35 = 20.70** **Price for the menus with fish: 4 pieces * 12.40 = 49.60** **Price for vegetarian menus: 3 pieces * 8.15 = 24.45** **Total cost of menus: 20.70 + 49.60 + 24.45 = 94.75** **Price of dessert: 20% from 94.75 = 18.95** **Delivery price: 2.50 (conditional)** **Total order price: 94.75 + 18.95 + 2.50 = 116.20**
9 2 6	202.72	**Price for chicken menus: 9 pieces * 10.35 = 93.15** **Price for fish menus: 2 pieces * 12.40 = 24.80** **Price for vegetarian menus: 6 pieces * 8.15 = 48.90** **Total cost of menus: 93.15 + 24.80 + 48.90 = 166.85** **Price of dessert: 20% from 166.85 = 33.37** **Delivery price: 2.50 (conditional)** **Total order price: 166.85 + 33.37 + 2.50 = 202.72**

5. Basketball equipment

Jesse decides he wants to play basketball, but he needs equipment to train. **Write a program that calculates the expenses of Jesse if he starts training, knowing how much is the fee for basketball training for a period of 1 year.**

- **Basketball sneakers – their price is 40% less than the fee for one year**
- **Basketball uniform – its price is 20% cheaper than that of sneakers**
- **Basketball ball – its price is 1 / 4 of the price of the basketball uniform**
- **Basketball accessories – their price is 1 / 5 of the price of the basketball ball**

Input

From the console read **1 row**:

- **The annual basketball training fee – an integer in the range [0... 9999]**

Output

Print on the console **how much Jesse will spend if he starts playing basketball.**

Example

Input	Output	Comments

365	811.76	**Price of training per year: 365** **Price of basketball sneakers: 365 – 40% = 219** **Price per basketball uniform: 219 – 20% = 175.20** **Price of basketball ball: 1 / 4 from 175.20 = 43.80** **Price of basketball accessories: 1 / 5 from 43.80 = 8.76** **Total price for the equipment: 365 + 219 + 175.20 + 43.80 + 8.76 = 811.76**
550	1223.2	**Price of training per year: 550** **Price of basketball sneakers: 550 – 40% = 330** **Price per basketball uniform: 330 – 20% = 264** **Basketball ball price: 1/4 of 264 = 66** **Price of basketball accessories: 1 / 5 from 66 = 13.20** **Total price for the equipment: 550 + 330 + 264 + 66 + 13.20 = 1223.2**

6. Aquarium

For his birthday, Lyubomir received an aquarium in the shape of a parallelepiped. **Initially, we read from the console in separate rows its dimensions – length, width and height in centimeters.** It is necessary to calculate how many liters of water the aquarium will collect, if it is known that a certain percentage of its capacity is occupied by sand, plants, heater and pump.

One liter of water is equal to one cubic decimeter (**1 l = 1 dm^3**).

Write a program that calculates the liters of water that are needed to fill the aquarium.

Input

From the console read **4 lines**:

1. **Length in cm – an integer number in the range [10 ... 500].**
2. **Width in cm – an integer number in the range [10 ... 300].**
3. **Height in cm – an integer number in the range [10... 200].**
4. **Percentage – floating point number in the range [0.000 ... 100.000].**

Output

Print one number on the console:

- **the liters of water that the aquarium will collect, formatted to the second decimal place**.

Example

Input	Output	Comments
85 75 47 17	248.69	Volume of the aquarium: 85 * 75 * 47 = 299625 cm^3 Volume in liters: 299625 * 0.001 or 299625 / 1000 => 299.625 liters Occupied space: 17% = 0.17 Required liters: 299.625 * (1 - 0.17) = 248.68875 liters
105 77 89 18.5	586.45	Volume of the aquarium: 105 * 77 * 89 = 719565 cm^3 Volume in liters: 719565 * 0.001 or 719565 / 1000 => 719.565 liters

		Occupied space: **18.5%** = **0.185** Required liters: 719.565 *** (1 - 0.185)** **= 586.445475 liters**