# Exercises: C# Intro and Basic Syntax

Problems for exercises and homework for the [“Programming Fundamentals Extended” course @ SoftUni](https://softuni.bg/courses/programming-fundamentals).

## Debit Card Number

Write a program, which receives **4** **integers** on the console and **prints them** in **4-digit debit card format**. See the examples below for the appropriate formatting.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 12  433  1  5331 | 0012 0433 0001 5331 |
| 9182  4221  12  3 | 9182 4221 0012 0003 |
| 812  321  123  22 | 0812 0321 0123 0022 |

## Rectangle Area

Write a program, which calculates a **rectangle’s area**, based on its **width** and **height**. The **width** and **height** come as floating point numbers on the console, **formatted to the 2nd character after the decimal point**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 2  7 | 14.00 |
| 7  8 | 56.00 |
| 12.33  5 | 61.65 |

## Miles to Kilometers

Write a program, which **converts** **miles** to **kilometers**. **Format** the output to the **2nd decimal place**.

Note: **1 mile == 1.60934 kilometers**

### Examples

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| 60 | 96.56 | 1 | 1.61 | 52.1113 | 83.86 |

## Beverage Labels

Write a program, which reads a food product **name**, **volume**, **energy content** **per 100ml** and **sugar content per 100ml**. Calculate the **energy** and **sugar content** for the **given volume** and print them on the console in the following format:

* Name – as per the input
* Volume – **integer**, **suffixed** by “**ml**” (e.g. “**220ml**”)
* Energy content – **integer**, **suffixed** by “**kcal**” (e.g. “**500kcal**”)
* Sugar content – **real number**, **suffixed** by “**g**” (e.g. “**30g**”)

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| Nuka-Cola  220  300  70 | 220ml Nuka-Cola:  660kcal, 154g sugars |

|  |  |
| --- | --- |
| **Input** | **Output** |
| Ice Cold Nuka-Cola  250  350  65 | 250ml Ice Cold Nuka-Cola:  875kcal, 162.5g sugars |

|  |  |
| --- | --- |
| **Input** | **Output** |
| Nuka-Cola Quantum  350  600  140 | 350ml Nuka-Cola Quantum:  2100kcal, 490g sugars |

## \* Character Stats

Write a program, which **displays information** about a video game character. You will receive their **name**, **current health**, **maximum health**, **current energy** and **maximum energy** on separate lines. The **current** values will **always** be valid (**equal or lower** than their respective **max** values). Print them in the format as per the examples.

### Examples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| Mayro  5  10  9  10 | Name: Mayro  Health: ||||||.....|  Energy: ||||||||||.| | Bauser  10  10  10  10 | Name: Bauser  Health: ||||||||||||  Energy: |||||||||||| |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| Loogi  8  20  2  14 | Name: Loogi  Health: |||||||||............|  Energy: |||............| | Toad  0  5  0  10 | Name: Toad  Health: |.....|  Energy: |..........| |

### Hints

* You can print a character **multiple** times, using new string(character, count).