Exercises: Simple Commands

Test your solutions in the **judge system**: https://judge.softuni.org/Contests/4624

1. Text Reading

Write a **console program** that:

- Reads **input** from the console
- Print the **entered** text on the console

Example Input / Output

Input	Output
C# Rocks	C# Rocks

```
string text = Console.ReadLine();
Console.WriteLine(text);
```

2. Square Area

Write a **console program** that:

- Reads the integer number, which represents **length of one side of a square**
- Calculates **its area**
- Prints the **calculated area** on the console

Note: Square's area is calculated when you multiplied length by length: **length * length**

Example Input / Output

```
//
int side = int.Parse(Console.ReadLine());
Console.WriteLine(side * side);
```

Input	Output
2	4

Input	Output
6	36

Instructions

1. **Initialize** an int variable (a) and **assign a value** from the **input from the console**:

```
int a = int.Parse(Console.ReadLine());
```

2. Initialize a second variable named **area,** in which you will **store the value for the square's area**, obtained using **the formula a * a. Print the resulting value.**

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```
int a = int.Parse(Console.ReadLine());

int area = a * a;
Console.WriteLine(area);
```

//

```
int side = int.Parse(Console.ReadLine());
int area = side * side;
Console.WriteLine(area);
```

3. Rectangle Area

Write a **console program** that:

- Reads two integer numbers, which represents **length and width of the rectangle**
- Calculates **rectangle's area**
- Prints the **calculated area** on the console

Note: Rectangle's area is calculated when you multiplied length by width: **length * width**

Example Input / Output

//

```
int a = int.Parse(Console.ReadLine());
int b = int.Parse(Console.ReadLine());
Console.WriteLine(a*b);
```

Input	Output
2 5	10

4. Trapezoid Area

Write a **console program** that:

- Reads three integer numbers, which represents **first base, second base and height of the trapezoid**
- Calculates **trapezoid's area**
- Prints the **calculated area** on the console

Note: Trapezoid's area is calculated when you sum two bases, divide them by two and the result is multiplied by height: **(first base + second base) / 2 * height**

Example Input / Output

//

```
int a = int.Parse(Console.ReadLine());
int b = int.Parse(Console.ReadLine());
int h = int.Parse(Console.ReadLine());
Console.WriteLine(((a+b)/2)*h);
```


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Input	Output
6 2 3	12

//Input
int firstBase = int.Parse(Console.ReadLine());
int secondBase = int.Parse(Console.ReadLine());
int height = int.Parse(Console.ReadLine());
 	
//Act (Process)
int area = (firstBase + secondBase) / 2 * height;
 	
//Output
Console.WriteLine(area);	

5. Triangle Perimeter

Write a **console program** that:

- Reads three integer numbers, which represents **sides of the triangle**
- Calculates **triangle's perimeter**
- Prints the **calculated perimeter** on the console

Note: Triangle's perimeter is calculated when you sum all sides values.

Example Input / Output

Input	Output
6 2 3	11

```
//Input

int sideA = int.Parse(Console.ReadLine());
int sideB = int.Parse(Console.ReadLine());
int sideC = int.Parse(Console.ReadLine());

//Act (Processing)

int perimeter = sideA + sideB + sideC;


//Output

Console.WriteLine(perimeter);
```

6. Inches to Centimeters Converter

Write a console program:

- Reads **a length in inches** from the console
- Converts it to **centimeters**
- Print the **converted length in centimeters on the console**

Note: For calculation, multiply the inches by 2.54 (1 inch = 2.54 centimeters).

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Example Input/Output

Input	Output
5	12.7

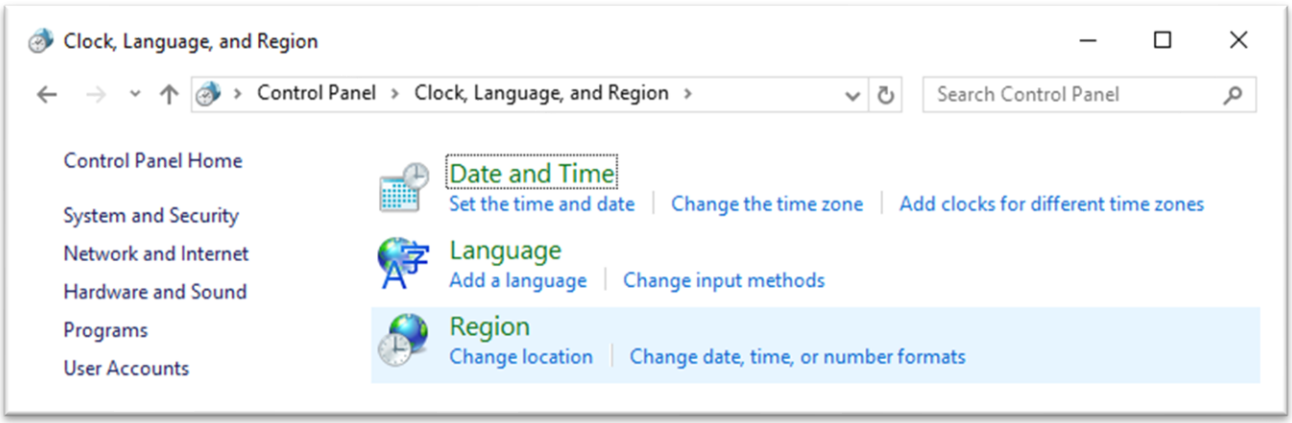
Input	Output
7	17.78

```
//Input
double inch = double.Parse(Console.ReadLine());

//Act (Processing)
double centimeters = inch * 2.54;

//Output
Console.WriteLine(centimeters);
```

Attention: depending on the **regional settings** of the operating system, instead of a **decimal point** (US settings), a **decimal comma** (BG settings) may be used by default. If the program expects a decimal point and a number with a decimal comma is entered, or vice versa (a decimal point is entered when a decimal comma is expected), the following error will occur:

```
Unhandled Exception: System.FormatException: Input string was not in a
correct format.
   at System.Number.ParseDouble(String value, NumberStyles options, Num
berFormatInfo numfmt)
   at System.Double.Parse(String s)
   at Inches_to_Centimeters.Program.Main(String[] args) in C:\Projects\
Simple-Calculations\Inches-to-Centimeters\Program.cs:line 14
```

It is recommended to **adjust your computer settings to use a decimal point**:



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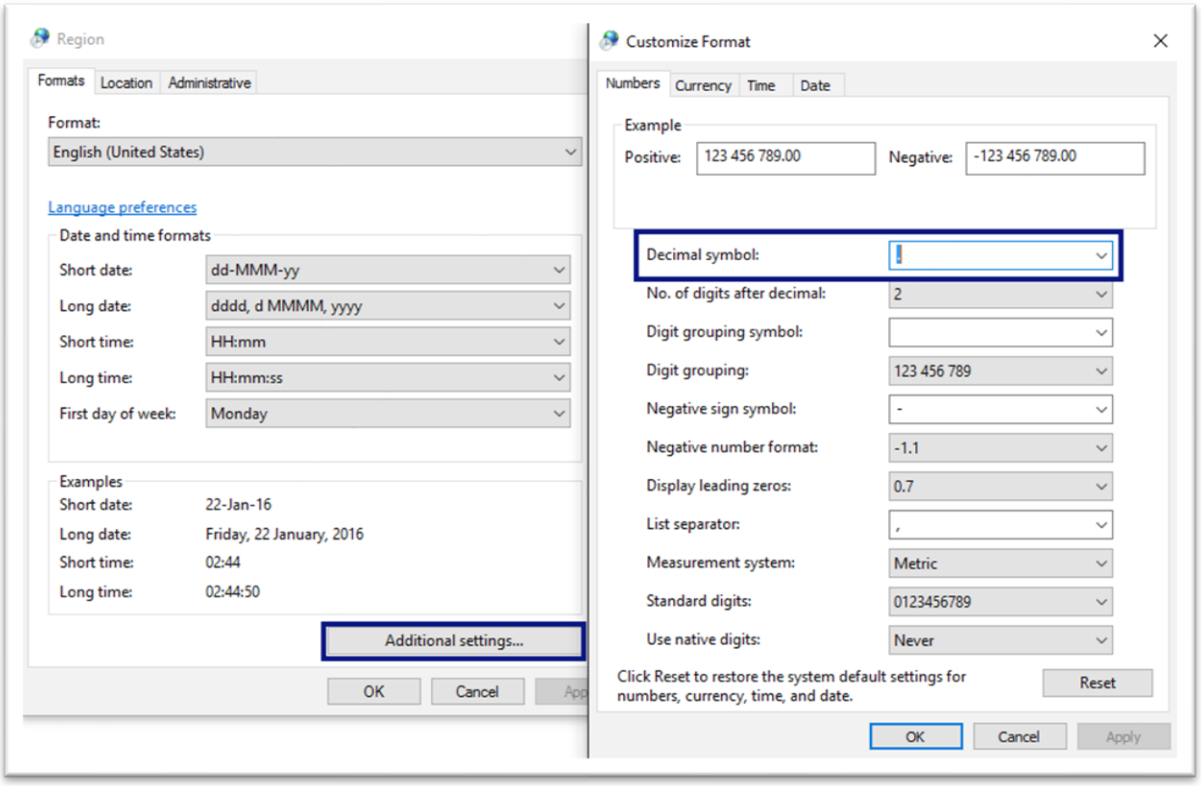

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