# Lab: Type System

## Hello World

Write a simple function that prints the following text: "**Hello World!**".

## Numbers 1 to 10

Write a simple function that prints **numbers from 1 to 10**, each on separate line.

## Calculate Rectangle Area

### Write a simple function that calculates rectangle area. You will be given two integers (whole) numbers, which will represent length and width of the rectangle. Calculate and print the area of the rectangle.

### Examples

|  |  |
| --- | --- |
| **input** | **output** |
| 5,  7 | 35 |

|  |  |
| --- | --- |
| **input** | **output** |
| 6,  8 | 48 |

## Convertor Inches to Centimeters

Write a simple function that uses a **real number,** which represents quantity of inches. Convert it to **centimeters**. To do this, multiply the quantity of **inches by 2.54** (1 inch = 2.54 centimeters).

### Examples

|  |  |
| --- | --- |
| **input** | **output** |
| 5 | 12.7 |

|  |  |
| --- | --- |
| **input** | **output** |
| 7 | 17.78 |

## Calculate Circle Area

Write a function that calculates and displays the area of a circle based on the **provided radius** (real number). Use the formula for the area of a circle, which is **area = π \* r \* r**, where π (pi) is approximately **3.14159** and **r** is the radius. You have to format the result to the **second digit**.

### Examples

|  |  |
| --- | --- |
| **input** | **output** |
| 5 | 78.54 |

## String Length

Write a function that takes **one** **string** as an input. Calculate and print the **length** of the **string**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| **'chocolate'** | **9** |
| **'pasta'** | **5** |

## Largest Number

Write a function that takes **three number arguments** as input and finds the **largest** of them.

* Print the following text on the console: **`The largest number is {number}.`**.
* The **input** comes as **three number arguments** passed to your function.
* The **output** should be printed to the console.

### Example

|  |  |
| --- | --- |
| **Input** | **Output** |
| **5, -3, 16** | **The largest number is 16.** |
| **-3, -5, -22.5** | **The largest number is -3.** |

## Sum of Numbers N…M

Write a function that takes two integer numbers **N and M** as an input and **prints the sum** of all numbers from **N** to **M**.

* The **input** comes as **two string elements** that need to be **parsed** as numbers.
* The **output** should print the **sum**.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| **'1', '5'** | **15** |
| **'-8', '20'** | **174** |

## Day of Week

Write a function that prints a number between 1 and 7 when a **day of the week** is passed to it as a string and an **error message** if the string is **not recognized**.

* The **input** comes as a single-string argument.
* The **output** should be printed.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| **'Monday'** | **1** |
| **'Friday'** | **5** |
| **'Invalid'** | **error** |