# Lab: JavaScript Syntax

Problems for exercises and homework for the "[Free JS for Front-End Course @ SoftUni](https://softuni.bg/trainings/2946/js-for-front-end-march-2020)". Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/Practice/Index/2234#0>

## Calculate

Write a JavaScript program to print the value of the following expression:

* (30 + 25) + ((35 – 14) \* 2)

|  |
| --- |
| **solve.js** |
| function calculate() {  // TODO: Return the expression here …  }  calculate(); |

## Bigger Number

Write a program with **two numbers** and print bigger of them.

### Examples:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| 10  20 | 20 |  | 66  4 | 66 |

### Hints

* Use if/else **statement**

|  |
| --- |
| **solve.js** |
| function biggerNumber(input) {  let firstNumber = Number(input[0]);  let secondNumber = Number(input[1]);  // TODO: Check which number is bigger.  }  biggerNumber(['2', '3']); // Expected output: 3 |

## First 20 Numbers

Write a program, which prints **first 20 numbers**.

|  |
| --- |
| **solve.js** |
| function printFirstTwentyNumbers() {  // TODO: Print the numbers here…  }  printFirstTwentyNumbers(); |

## Print the Elements in Array

Write a program, which print **all array elements**.

### Examples:

|  |  |
| --- | --- |
| **Input** | **Output** |
| **let elements = [1, 2, 3, 4, 5];** | 1  2  3  4  5 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| **let elements = [aaa, ooo, uuu];** | aaa  ooo  uuu |

|  |
| --- |
| **solve.js** |
| function printElements() {  let element = input;  // TODO: Print all of the elements here…  }  printElements ([1,2,3,4,5]); |

## String Length

Write a function that takes **three** **string arguments** as an input.

Calculate the **sum** of the **length** of the **strings** and the **average length** of the strings **rounded** **down** to the nearest integer.

The **input** comes as **three string arguments** passed to your function.

The **output** should be printed on the console on two lines.

### Examples

|  |  |
| --- | --- |
| **Input** | **Output** |
| 'chocolate', 'ice cream', 'cake' | 22  7 |

|  |  |
| --- | --- |
| **Input** | **Output** |
| 'pasta', '5', '22.3' | 10  3 |

## 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 returned as a result.

### Examples

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

## \* Aggregate Elements

Write a program that performs different operations on an array of elements. Implement the following operations:

* **Sum(ai)** - calculates the sum all elements from the input array
* **Sum(1/ai)** - calculates the sum of the inverse values (1/ai) of all elements from the array
* **Concat(ai)** - concatenates the string representations of all elements from the array

The **input** comes as an array of number elements.

The **output** should be printed on the console on a new line for each of the operations.

### Examples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| [1, 2, 3] | 6  1.8333  123 | [2, 4, 8, 16] | 30  0.9375  24816 |

## \* Math Operations

Write a function that takes **two** **numbers** and **a string** as an input. The string may be one of the following: '**+**', '**-**', '**\***', '**/**', '**%**', '**\*\***'.

Print on the console the result of the mathematical **operation** between **both numbers** and the **operator** you receive as a string.

The **input** comes as **two numbers** and **a string argument** passed to your function.

The **output** should be printed on the console.

### Examples

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| 5, 6, '+' | 11 |  | 3, 5.5, '\*' | 16.5 |