# Exercises: 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/2235#0>.

## Multiply a Number by 2

You are given a number **N**. Create a function that **multiplies** the **number by 2** and prints the result. The input comes as an **array of strings**.

### Examples

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| 2 | 4 |  | 3 | 6 | 30 | 60 | 13 | 26 |

### Hints

|  |
| --- |
| **multiplyNumber.js** |
| function multiplyNumber(num) {  // TODO: Return the number multiplied by two  }  multiplyNumber(2); // 4 |

## Multiply Two Numbers

You are given a number X and a number Y. Create a JS function that multiplies X \* Y and prints the result. The input comes as array of strings.

### Examples

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| 2  3 | 6 |  | 13  13 | 169 | 1  2 | 2 | 0  50 | 0 |

## Multiply / Divide a Number by a Given Second Number

You are given a number N and a number X. Create a function that:

* Multiplies N \* X if X is greater than or equal to N
* Divides N / X if N is greater than X

The input comes as array of strings.

### Examples

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| 2  3 | 6 |  | 13  13 | 169 | 3  2 | 1.5 | 144  12 | 12 |

## Product of 3 Numbers

You are given a number X, Y and Z. Create a function that finds if X \* Y \* Z (the product) is negative or positive. Try to do this **WITHOUT** multiplying the 3 numbers.

### Examples

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| 2  3  -1 | Negative |  | 5  4  3 | Positive | -3  -4  5 | Positive |

### Hint

* Count the **negative numbers**. If they are odd number, the result will be negative, otherwise 🡪 **positive**.
* Special case: one of the numbers is **0** 🡪 the **product** is **positive**.

## Print Numbers from 1 to N

You are given a number N. Create a JS function that loops through all the numbers from **1 to N** and prints them. N will always be positive.

### Examples:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| 5 | 1  2  3  4  5 |  | 2 | 1  2 |

## Print Numbers from N to 1

You are given a number N. Create a JS function that loops through all the numbers from **N to 1** and prints them. N will always be positive.

### Examples:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |
| 5 | 5  4  3  2  1 |  | 2 | 2  1 |

## Print Numbers in Reversed Order

You will be given a few numbers as input. You need to print them in reversed order, each on a new line.

### Examples:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| 10  15  20 | 20  15  10 |  | 5  5.5  24  -3 | -3  24  5.5  5 | 20  1  20  1  20 | 20  1  20  1  20 |

## \*Set Values to Indexes in an Array

You will be given **N** -an integer specifying the **length** of an **array**. Then you will start receiving an **index** and a **value**. For each received line you must **set** the **value** at the given **index** to the **given value**.

When you’ve processed all input data, **print** the array’s elements **each on a new line**.

### Examples:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** |  | **Input** | **Output** |  | **Input** | **Output** |
| **3**  0 - 5  1 - 6  2 - 7 | 5  6  7 |  | **2**  0 - 5  0 - 6  0 - 7 | 7  0 | **5**  0 - 3  3 - -1  4 - 2 | 3  0  0  -1  2 |

## \*Fruit

Write a function that calculates how much money you need to buy fruit. You will receive a **string** for the type of fruit you want to buy, **a number** for weight in grams and another **number** for the price per kilogram.

Print the following text on the console:

**'I need ${money} to buy {weight} kilograms {fruit}.'**

Print the weight and the money **rounded** to two decimal places.

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

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

**Example**

|  |  |
| --- | --- |
| **Input** | **Output** |
| 'orange', 2500, 1.80 | I need $4.50 to buy 2.50 kilograms orange. |

|  |  |
| --- | --- |
| **Input** | **Output** |
| 'apple', 1563, 2.35 | I need $3.67 to buy 1.56 kilograms apple. |