

## ACT #1

Colocar true or false en papel

( true && true )	<i>True</i>
( false && true )	<i>False</i>
( true && false )	<i>False</i>
( false && false )	<i>False</i>
( true    true )	<i>True</i>
( true    false )	<i>True</i>
( false    true )	<i>True</i>
( false    false )	<i>False</i>
!( false    true )	<i>False</i>
!( false && true )	<i>True</i>
( !false && true )	<i>True</i>
( !true && true )	<i>False</i>
( !false    false )	<i>True</i>

## ACT # 2

- **Comparison**

```
• /**
•  * Exercise #1
•  * Create a function that takes in one number
•  * and checks if the number is greater than 10. Print out to the
  console true if it is greater and false otherwise.
•  */
•
• function exerciseOne(number){
•   if(number>10){
•     console.log("true")
•   }else{
•     console.log("false")
•   }
• }
•
• /**
•  * Exercise #2
•  * Create a function that takes in one number
•  * and checks if it is divisible by 4 or divisible by 9.
•  * Print out to the console true if a number
•  * if divisible by 4 or 9, and false if a
•  * number is not divisible by either number.
•  */
•
• function exerciseTwo(number){
•   resto_Cuatro=number%4;
•   resto_Nueve=number%9;
•   if(resto_Cuatro==0 || resto_Nueve==0){
•     console.log("true")
•   }else{
•     console.log("false")
•   }
• }
• }
```

index.js x

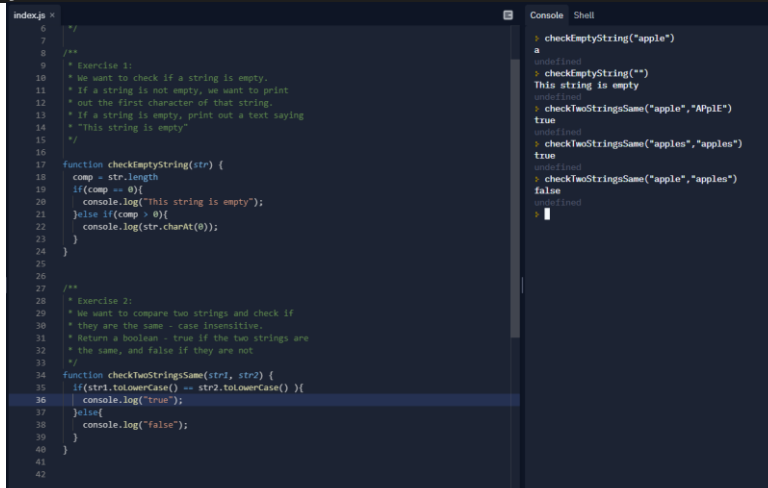
```
1  /**
2   * 1. Create a fork of this repl.it.
3   * 2. Write test cases to validate your code before you complete the exercise.
4   * 3. Make sure to run your exercise and check
5   * for correctness.
6   */
7
8  /**
9   * Exercise #1
10   * Create a function that takes in one number
11   * and checks if the number is greater than 10. Print out to the console true if it is
12   * greater and false otherwise.
13   */
14
15  /**
16   * Exercise #2
17   * Create a function that takes in one number
18   * and checks if it is divisible by 4 or divisible by 9.
19   * Print out to the console true if a number
20   * if divisible by 4 or 9, and false if a
21   * number is not divisible by either number.
22   */
23  function exerciseOne(number){
24    if(number>10){
25      console.log("true")
26    }else{
27      console.log("false")
28    }
29  }
30
31  function exerciseTwo(number){
32    resto_Cuatro=number%4;
33    resto_Nueve=number%9;
34    if(resto_Cuatro==0 && resto_Nueve==0){
35      console.log("true")
36    }else{
37      console.log("false")
38    }
39  }
```

Console Shell

```
> exerciseOne(15)
true
undefined
> exerciseOne(8)
false
undefined
> exerciseTwo(18)
false
undefined
> exerciseTwo(36)
true
undefined
> |
```

## • String Function

```
• * Exercise 1:
• * We want to check if a string is empty.
• * If a string is not empty, we want to print
• * out the first character of that string.
• * If a string is empty, print out a text saying
• * "This string is empty"
• */
•
• function checkEmptyString(str) {
•   comp = str.length
•   if(comp == 0){
•     console.log("This string is empty");
•   }else if(comp > 0){
•     console.log(str.charAt(0));
•   }
• }
•
• /**
• * Exercise 2:
• * We want to compare two strings and check if
• * they are the same - case insensitive.
• * Return a boolean - true if the two strings are
• * the same, and false if they are not
• */
• function checkTwoStringsSame(str1, str2) {
•   if(str1.toLowerCase() == str2.toLowerCase() ){
•     console.log("true");
•   }else{
•     console.log("false");
•   }
• }
• }
```



The screenshot shows a code editor with a dark theme. On the left, the code from the previous block is visible, with line numbers 6 through 42. The code defines two functions: `checkEmptyString` and `checkTwoStringsSame`. On the right, the 'Console' tab is active, showing the output of the code. The output includes the results of `checkEmptyString('apple')` (which is `a`), `checkEmptyString('')` (which is `This string is empty`), `checkTwoStringsSame('apple', 'Apple')` (which is `true`), `checkTwoStringsSame('apples', 'apples')` (which is `true`), and `checkTwoStringsSame('apple', 'apples')` (which is `false`).

## • User Input

```

• /**
• *
• * Create a function that takes in 2 inputs (using prompt)
• * and goes through the 5 arithmetic operators (+, -, /, *,
• * %). The expected output on the console is:
• * `The sum is x` -> x is the calculated sum
• * `The subtraction is y` -> y is the calculated difference
• * `The multiplication is z` -> z is the calculated multiplication
• * `The division is w` -> w is the calculated division
• * `The remainder is q` -> q is the calculated remainder
• */
•
• function mathematicOperations() {
•   num1=parseInt(prompt("Cual es el valor del primer numero?"));
•   num2=parseInt(prompt("Cual es el valor del segundo numero?"));
•
•   suma=num1+num2;
•   resta=num1-num2;
•   division=num1/num2;
•   multi=num1*num2;
•   resto=num1%num2;
•
•   console.log("The sum is " + num1 + " + " + num2 + " -> " + suma + "
is the calculated sum");
•   console.log("The subtraction is " + num1 + " - " + num2 + " -> " +
resta + " is the calculated difference");
•   console.log("The multiplication is " + num1 + " * " + num2 + " -> "
+ multi + " is the calculated multiplication");
•   console.log("The division is " + num1 + " / " + num2 + " -> " +
division + " is the calculated division");
•   console.log("The remainder is " + num1 + " % " + num2 + " -> " +
resto + " is the calculated remainder");
• }
•
• mathematicOperations();

```

The screenshot shows a code editor with the following code:

```

1 // Create a function that takes in 2 inputs (using prompt)
2 // and goes through the 5 arithmetic operators (+, -, /, *,
3 // %). The expected output on the console is:
4 // `The sum is x` -> x is the calculated sum
5 // `The subtraction is y` -> y is the calculated difference
6 // `The multiplication is z` -> z is the calculated multiplication
7 // `The division is w` -> w is the calculated division
8 // `The remainder is q` -> q is the calculated remainder
9
10 function mathematicOperations() {
11   num1=parseInt(prompt("Cual es el valor del primer numero?"));
12   num2=parseInt(prompt("Cual es el valor del segundo numero?"));
13
14   suma=num1+num2;
15   resta=num1-num2;
16   division=num1/num2;
17   multi=num1*num2;
18   resto=num1%num2;
19
20   console.log("The sum is " + num1 + " + " + num2 + " -> " + suma + "
is the calculated sum");
21   console.log("The subtraction is " + num1 + " - " + num2 + " -> " +
resta + " is the calculated difference");
22   console.log("The multiplication is " + num1 + " * " + num2 + " -> "
+ multi + " is the calculated multiplication");
23   console.log("The division is " + num1 + " / " + num2 + " -> " +
division + " is the calculated division");
24   console.log("The remainder is " + num1 + " % " + num2 + " -> " +
resto + " is the calculated remainder");
25 }
26
27 mathematicOperations();

```

The console output shows the results of the function execution:

```

Cual es el valor del primer numero? 10
Cual es el valor del segundo numero? 20
The sum is 10 + 20 -> 30 is the calculated sum
The subtraction is 10 - 20 -> -10 is the calculated difference
The multiplication is 10 * 20 -> 200 is the calculated multiplication
The division is 10 / 20 -> 0.5 is the calculated division
The remainder is 10 % 20 -> 10 is the calculated remainder

```

## Practice

### Part 1:

```
function partOne(){
    respuesta=parseInt(prompt("How many task have you completed?"));
    if(respuesta <= 6 && respuesta >= 0 ){
        console.log("**Failed**")
    }else if(respuesta > 6 && respuesta <= 9){
        console.log("**Insuficiente**");
    }else if(respuesta > 9 && respuesta <= 14){
        console.log("**Good**");
    }else if(respuesta == 15){
        console.log("**Excellent**")
    }else{
        console.log("**Error**")
    }
}

partOne();
```

### Part 2:

```
function partTwo(){
    let num = [];
    let mayor=0;
    for(let i=0 ; i<5 ; i++){
        num.push(parseInt(prompt("What is your" + (i+1) + " number ?")));
        console.log(num[i]);
        comp=num[i];
        if(mayor<comp){
            mayor=comp;
        }else{}
    }
    console.log("The greatest number found was " + mayor);
}

partTwo();
```

### Part 3:

```
function partThree(){
    let num = [];
    let menor1=0,menor2=0;

    for(let i=0 ; i<3 ; i++){
        num.push(parseInt(prompt("What is the price of the " + (i+1) + "
item ?")));
        console.log(num[i]);
        comp=num[i];

        if(i==0){
            menor1=num[i];
        }else if(i==1){
            menor2=num[i];
        }else{
            if(comp < menor1 && comp > menor2){
                menor1=comp;
            }
            else if (comp > menor1 && comp < menor2){
                menor2=comp;
            }
            else if(comp < menor1 && comp < menor2){
                if(menor1<menor2){
                    menor2=comp;
                }
                else{
                    menor1=comp;
                }
            }
        }
    }
    console.log("The 2 lowest priced items were $" + menor1 + " and $" +
menor2);
}

partThree();
```