JavaScript Homework #2

For this homework you will have the file structure ready. The **only** file that you need to edit is **js/methods.js**. In this homework you will only need to create functions. The tests to see if your functions work are inside **js/main.js**. In this file you have the parameters which will be passed to the functional and the expected output for each console.log(). This time you will have 2 optional tasks. You are not required to do them but I do recommend to at least try doing them. The optional tasks are #4 and #5.

**Task 1:**

1. You have a function called **factorial** which receives an integer as a parameter.
2. Your function needs to return the factorial of the given parameter.
3. To find the factorial of n (or n!), you need to calculate 1\*2\*3…\*n.

**Example:** *1! is 1*

*2! is 1 \* 2 = 2*

*3! is 1 \* 2 \* 3 = 6 ...*

**Task 2:**

1. You have a function called **hasValue** which receives an array and a string or integer as parameters.
2. Your function needs to return **true** or **false** depending on whether the given array contains the given value.
3. The type the element in the array and the value must be of one type.

**Example:** *[1,2,3,4,5] has the value 3 inside it, but doesn’t have the value ‘3’.*

**Task 3:**

1. You have a function called **outputObjectData** which receives an object as a parameter.
2. This function will not return anything. It has to output every element of the object in the following way: **key** => **value** (**type**) //use *typeof*

**Task 4\*:**

1. You have a function called **countDigits** which receives an integer as a parameter.
2. Your function needs to return the number of digits inside the given number.
3. You are not allowed to use .toString() and .length (Because I’m sure some of you will find them).

**Example:** *168 has 3 digits.*

**Task 5\*\*:**

1. You have a function called **fibonacci** which receives an integer as a parameter.
2. Your function needs to return an array, filled with the fibonacci sequence, up to the given number.
3. To get the fibonacci numbers you have to follow some rules. The first number is 0. The second number is 1. Every next number is the sum of the past two. So you have 0 and 1, that means the 3rd number is 0 + 1 = 1. The next one will be 1 + 1 = 2. Next one -> 1 + 2 = 3 and so on…