ACTIVITY 1: JS Functions

Perform all the steps in the JS file indicated below.

– index.html

```html
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript Functions Activity 1</title>
</head>
<body>
  <h1>JavaScript Functions Activity</h1>
  <script src="script.js"></script>
</body>
</html>
```

– script.js

```javascript
// Step 1: Create a function expression named greet and assign it an
anonymous function that logs a greeting message to the console.

// Step 2: Call the greet function.

// Step 3: Create a function expression named add and assign it an anonymous
function that takes two parameters and returns their sum.

// Step 4: Call the add function with the arguments 5 and 3, and store the
result in a variable named sum.


// Step 5: Log the value of the sum variable to the console.


// Step 6: Create a function expression named multiply and assign it an
anonymous function that takes two parameters and returns their product.

// Step 7: Call the multiply function with the arguments 4 and 2, and store
the result in a variable named product.
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```javascript
// Step 8: Log the value of the product variable to the console.


// Step 9: Create a function expression named isEven and assign it an
anonymous function that takes a number as a parameter and returns true if
it's even, false otherwise.


// Step 10: Call the isEven function with the argument 6 and store the
result in a variable named even.


// Step 11: Log the value of the even variable to the console.


// Step 12: Create a function expression named square and assign it an
anonymous function that takes a number as a parameter and returns its
square.


// Step 13: Call the square function with the argument 3 and store the
result in a variable named squaredValue.


// Step 14: Log the value of the squaredValue variable to the console.


// Step 15: Create a function expression named fullName and assign it an
anonymous function that takes two parameters (firstName and lastName) and
returns the full name as a string.


// Step 16: Call the fullName function with the arguments 'John' and 'Doe',
and store the result in a variable named name.


// Step 17: Log the value of the name variable to the console.


// Step 18: Create a function expression named capitalize and assign it an
anonymous function that takes a string as a parameter and returns the
capitalized version of the string.
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// Step 19: Call the capitalize function with the argument 'javascript' and
store the result in a variable named capitalizedString.


// Step 20: Log the value of the capitalizedString variable to the console.
```

ACTIVITY 2: JS Functions

Perform all the steps in the JS file indicated below.

– index.html

```html
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript Functions Activity 2</title>
</head>
<body>
  <h1>JavaScript Functions Activity</h1>
  <script src="script.js"></script>
</body>
</html>
```

– script.js

```
// Step 1: Declare a function named isEven that takes a number as a
parameter and returns true if the number is even and false otherwise.

// Step 2: Use a for loop to iterate from 0 to 10. Call the isEven function
for each iteration and log the result to the console.

// Step 3: Declare a function named multiply that takes two numbers as
parameters and returns their product.

// Step 4: Use a while loop to repeatedly prompt the user to enter two
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numbers and calculate their product using the multiply function. Log the
result to the console. Terminate the loop when the user enters a negative
number as any of the inputs.

// Step 5: Declare a function named reverseString that takes a string as a
parameter and returns the reversed version of the string.

// Step 6: Call the reverseString function with the string 'hello' and log
the result to the console.

// Step 7: Declare a function named countVowels that takes a string as a
parameter and returns the number of vowels in the string.

// Step 8: Call the countVowels function with the string 'JavaScript' and
log the result to the console.

// Step 9: Declare a function named findMax that takes an array of numbers
as a parameter and returns the maximum value in the array.

// Step 10: Call the findMax function with the array [4, 9, 2, 7, 5] and
log the result to the console.

// Step 11: Declare a function named calculateFactorial that takes a number
as a parameter and returns its factorial value.

// Step 12: Call the calculateFactorial function with the number 5 and log
the result to the console.

// Step 13: Declare a function named isPalindrome that takes a string as a
parameter and returns true if the string is a palindrome and false
otherwise.

// Step 14: Call the isPalindrome function with the string 'level' and log
the result to the console.

// Step 15: Declare a function named sumArray that takes an array of
numbers as a parameter and returns the sum of all the numbers in the array.

// Step 16: Call the sumArray function with the array [1, 2, 3, 4, 5] and
log the result to the console.

// Step 17: Declare a function named capitalizeFirstLetter that takes a
string as a parameter and returns the string with the first letter

```javascript
capitalized.

// Step 18: Call the capitalizeFirstLetter function with the string
'javascript' and log the result to the console.

// Step 19: Declare a function named filterEvenNumbers that takes an array
of numbers as a parameter and returns a new array with only the even
numbers.

// Step 20: Call the filterEvenNumbers function with the array [1, 2, 3, 4,
5, 6, 7, 8, 9, 10] and log the result to the console.
```