# JS Advanced – Final Exam

## Problem 3. Unit Testing

### Your Task

Using **Mocha** and **Chai** write **JS Unit Tests** to test a variable named **testNumbers**, which represents an object. You may use the following code as a template:

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| --- |
| describe(**"*Tests* …"**, **function**() {  describe(**"*TODO* …"**, **function**() {  ***it***(**"*TODO …*"**, **function**() {  *//* ***TODO:*** …  });  });  *//* ***TODO:*** …  }); |

The object should have the following functionality:

* sumNumber(num1, num2) - A function that accepts two parameters:
  + check if parameters are numbers
  + numbers can be positive and negative
  + if parameters aren't number, the function return undefined
  + the function returns the sum of the given numbers, rounded to the second number after the decimal point
* numberChecker(input) - A function that accepts a single parameter:
  + the function parses the input to a number, and validates it
  + if the input is a number, the function checks if it is even. If so the function returns the string: **"The number is even!"**
  + otherwise the function returns: **"The number is odd!"**
  + If the input is not a number the function throws an error – **"The input is not a number!"**
* averageSumArray(arr) - A function that accepts a single parameter (array):
  + the function iterates through each element in the array, calculates the sum, and returns the average sum
  + The array will be always valid, there is no need to test the input arrays.

### JS Code

To ease you in the process, you are provided with an implementation which meets all of the specification requirements for the **testNumbers** object:

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| --- |
| testNumbers.js |
| Const testNumbers = {      sumNumbers: function (num1, num2) {  let sum = 0;  **if** (**typeof**(num1) !== **'number'** || **typeof**(num2) !== **'number'**) {  **return undefined**;  } **else** {  **sum = (num1 + num2).toFixed(2);**           return sum  }      },      numberChecker: function (input) {          input = Number(input);    if (isNaN(input)) {              throw new Error('The input is not a number!');          }          if (input % 2 === 0) {              return 'The number is even!';          } else {              return 'The number is odd!';  }      },      averageSumArray: function (arr) {          let arraySum = 0;          for (let I = 0; I < arr.length; i++) {              arraySum += arr[i]          }          return arraySum / arr.length      }  }; |

### Submission

Submit your tests inside a describe() statement, as shown above.