# Lab: Unit Testing Arrays

Submit your solutions here: <https://alpha.judge.softuni.org/contests/unit-testing-arrays-lab/4681>

## Unit Test Array: Reverse Array

Look at the **provided skeleton** and examine the Reverse.cs class that you will test:

A screenshot of a computer

Description automatically generated

The method takes in an **integer array**, **reverses it**, and returns a **string** with the **reversed numbers**,

A close-up of text

Description automatically generated

Then, look at the tests inside the ReverseTests.cs class:

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Description automatically generated

A screenshot of a computer program

Description automatically generated

The first test is **finished** so you can have a **reference**, the second test is **unfinished**, your job is to finish writing it, and the final test is **empty,** and your task is to finish it. The tests should run when you're finished:

A screenshot of a computer code

Description automatically generated

## Unit Test Array: Even Odd Subtraction

Test a given method which takes in an **array of integers** and finds the **difference** between the **sum** of **even numbers** and the **sum** of **odd numbers**.

The method is found in the EvenOddSubtraction.cs file:

A screenshot of a computer code

Description automatically generated

You are given again a **test** **file** EvenOddSubtractionTests.cs which contains **4 tests**. One of them has been **finished**, one is **finished partially**, and **two** are **empty** for you to finish:

A screenshot of a computer

Description automatically generated

Finish the two tests and using the **names of the other two** finish writing the unit tests.

When you are ready make sure your **tests run:**

A screenshot of a computer

Description automatically generated

## Unit Test Array: Average

For the final array problem, test a method which takes in an **array of integers** and finds the **average** of the **sum** of numbers.

The method is found in the Average.cs file:

A screenshot of a computer program

Description automatically generated

In the **test** **file** AverageTests.cs you have **4 tests**. Once again, it's your task to finish the tests and run them:A screenshot of a computer

Description automatically generatedA screenshot of a computer program

Description automatically generated

## Unit Test Array: Even Length Words

Test a method which takes in an **array of strings** and **returns a string** with **all even length words, separated by a single space**.

The **method** is found in the **EvenLengthWordsFilter.cs** file:

Картина, която съдържа текст, екранна снимка, Шрифт, номер

Описанието е генерирано автоматично

In the test file **EvenLengthWordsFilterTests.cs**, there are **5 test cases** that need to be written:

Картина, която съдържа текст, екранна снимка, Шрифт, номер

Описанието е генерирано автоматично

When you are ready make sure your **tests run:**

Картина, която съдържа текст, Шрифт, линия, екранна снимка

Описанието е генерирано автоматично

## Unit Test Array: Prime Numbers

Test a given method which takes in an **array of integers** and **returns an array of integers with all prime numbers**.

The method is found in the **PrimeNumberFinder.cs** file:

Картина, която съдържа текст, екранна снимка, Шрифт, номер

Описанието е генерирано автоматично

There is **one helper method** to find if the number is prime or not:

Картина, която съдържа текст, екранна снимка, Шрифт, номер

Описанието е генерирано автоматично

You are given a test file **PrimeNumberFinderTests.cs** containing **5 empty tests**:

Картина, която съдържа текст, екранна снимка, Шрифт

Описанието е генерирано автоматично

When you are ready make sure your **tests run:**

Картина, която съдържа текст, екранна снимка, Шрифт

Описанието е генерирано автоматично

## \*Unit Test Array: Sorting

You are given **two methods that sort an array in ascending order** and **return an array of double values**.

The methods are found in the Sorting.cs file:

Картина, която съдържа текст, екранна снимка, Шрифт

Описанието е генерирано автоматично

The **ShallowAscendingSort method** will sort the array and **return a new one without changing the original array** passed as a parameter.

The **DeepAscendingSort method** will **change the original array and return it**.

You are given a test file **SortingTests.cs** containing **4 empty tests:**

Картина, която съдържа текст, Шрифт, линия, екранна снимка

Описанието е генерирано автоматично

When you are ready make sure your **tests run:**

Картина, която съдържа текст, Шрифт, линия, екранна снимка

Описанието е генерирано автоматично