# Lab: Methods

Problems for in-class lab for the ["Programming Fundamentals and Unit Testing" course @ SoftUni](https://softuni.bg/trainings/4256/programming-fundamentals-and-unit-testing-september-2023)  
You can check your solutions in [Judge](https://judge.softuni.org/Contests/4348)

## Calculations

You will be **provided with a Skeleton** that needs to be unzipped. A console program that receives three lines of input is created. The program **invokes a corresponding method** depending on a command. You should implement the logic in all **four** **methods** (for each calculation) in the **Calculator** class.

### Input

* On the first line – a **string** – "**add**", "**multiply**", "**subtract**", "**divide**".
* On the second line – a number.
* On the third line – another number.

### Example Input/Output

|  |  |
| --- | --- |
| **Input** | **Output** |
| subtract  5  4 | 1 |
| divide  8  4 | 2 |

## Unit Testing – Calculations

In this task, you will have to create a separate **NUnit project named Calculations.Tests**. Your objective is to **write unit tests** that thoroughly **cover the programming logic implemented in the Calculator class from Task 1**. These unit tests should **ensure that each calculation method produces the correct output** for various input scenarios.

### Instructions:

1. **Create** a new **NUnit** project named **Calculations.Tests**.
2. **Write** unit tests **for each of the four calculation methods** in the **Calculator** class. Your tests should cover various input cases, including edge cases, to validate the correctness of the calculations.
3. **Verify** that the **unit tests run successfully** in your NUnit project.

### Submission Instructions:

In the end, you will need to **prepare an archive** containing only the **Calculations.Tests** project. This archive should be submitted in Judge for evaluation.