# Homework: Methods

This document defines the homework assignments from the ["Advanced C#" Course @ Software University](http://softuni.bg/courses/advanced-csharp/). Please submit as homework a single zip / rar / 7z archive holding the solutions (source code) of all below described problems.

## Bigger Number

Write a method **GetMax()** with two parameters that returns the larger of two integers. Write a program that reads 2 integers from the console and prints the largest of them using the method **GetMax()**.

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| --- | --- | --- |
| **Sample Code** | **Input** | **Output** |
|  | 4  -5 | 4 |

## Last Digit of Number

Write a method that returns the last digit of a given integer as an English word. Test the method with different input values. Ensure you name the method properly.

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| **Sample Code** | **Output** |
|  | two  four  nine |

## Larger Than Neighbours

Write a method that checks if the element at given position in a given array of integers is larger than its two **neighbours** (when such exist).

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| **Sample Code** | **Output** |
|  | False  False  False  True  False  False  True |

## First Larger Than Neighbours

Write a method that returns the index of the **first element in array** that is **larger** than its **neighbours**, or **-1** if there's no such element. Use the method from the previous exercise in order to re.

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| **Sample Code** | **Output** |
|  | 3  -1  -1 |

## Reverse Number

Write a method that **reverses the digits** of a given **floating-point** number.

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| --- | --- | --- |
| **Sample Code** | **Input** | **Output** |
|  | 256  123.45  0.12 | 652  54.321  21 |

## Number Calculations

Write methods to calculate the **minimum**, **maximum**, **average**, **sum** and **product** of a given set of numbers. **Overload** the methods to work with numbers of type **double** and **decimal**.

**Note**:Do not use LINQ.

## \* Generic Array Sort

Write a method which takes an array of any type and sorts it. Use **bubble sort** or **selection sort** (**your own implementation**). You may re-use your code from a previous homework and modify it.

Use a **generic method** (read in Internet about **generic methods in C#**). Make sure that what you're trying to sort can be sorted – your method should work with **numbers**, **strings**, **dates**, etc., but not necessarily with custom classes like Student.

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| **Sample Code** |
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