

## Laboratory 2 - preparation

Set is one of the primary concepts in mathematics. A set is uniquely identified by its content (set elements), but their order does not matter.

In class, we will implement a set of integers (based on an array of integers) and basic operations on sets, such as sum, difference or intersection of sets.

As a preparation do the following tasks:

1. Write a program that reads the contents of a set from a text file and prints the elements of the set to the screen.
2. Modify the program from Task 1 so that when reading the set, it ignores the repeating elements (duplicates). For example, for the input data  $\{1,2,3,1,4,1,5,2\}$  the program will print  $\{1,2,3,4,5\}$
3. Write a program that reads two sets from text files, and then calculates and writes to the screen: the sum, intersection and difference of these sets.
4. Write a program that will find out if the given sets are equal.
5. Write a program that will find out if the given sets are disjoint.