Exercises:

1) General questions:
   a) How can we retrieve the length of an array?
   b) How can we append new items to an array?
2) Get acquainted with the usage of arrays. What happens if you create an array of size ten and:
   a) access the element at index 10?
   b) access the element at index -1?

   Document the results with screenshots if required.
3) Create a method that accepts at least two array arguments. The method should copy the content of one array into the other array.
   a) Write a test program to test your method.
   b) Which error cases do you need to handle in this method?
4) Write a method, which concatenates two arrays.
   a) A solution implemented with loops.
   b) A solution with the companion class *Arrays*.
5) Write a method, which shuffles elements in an array. Mind to write a unit test!
6) Write a method, which removes the duplicates contained in a passed array.
7) Write a predicate methods that checks, whether the passed string is an anagram. An anagram is a text made by exchanging the letters of another text. For example, "parliament" is an anagram of "partial men".
8) Write a method, which accepts a *String[] words*, a *String keyword* and the int *minLength* and returns another *String[]*. This method should retrieve all *String*s in words, which contain the *keyword* having a length >= *minLength*.
9) Re-implement the program of the last exercises, which calculated the sum of squares with an array of five items.
10) Write a program, which transposes a two dimensional array.
11) Implement the "I pack my back" game in a simple version as a Java program. – The user shall enter one word after another and must be able to repeat the chain of words. The program should have a menu to control the flow of the game. (You'll need a way to clear the console in Java, please see https://stackoverflow.com/questions/2979383/java-clear-the-console.)
12) Implement a program that counts all equal words in a text file. The program should output a list of all found words and their count (such a list is called "histogram").
13) Implement a program similar to that in the last exercise with following additional feature:
    a) Do the word counting with all files having the extension .txt in a specific directory. Develop a reasonable way to output the gained histograms.

Remarks:

- As always.