**Homework 3**

How do you get the largest element of an array with

reduceLeft? In order to test the code, you need first randomly generated array using the functional programming and print out the content of array **(1)**

Write the factorial function using to and reduceLeft, without a loop or recursion. You need add a special case when n < 1. **(2)**

Write a program that reads words from a text ﬁle. Use a **mutable map** to count how often each word appears. To read the words, simply use a java.util.Scanner:

val in = new java.util.Scanner(new java.io.File("myfile.txt"))   
while (in.hasNext()) process in.next()

Or look at the documentations for a Scalaesque way. At the end, **print out all words and their counts. (3)**

Repeat the preceding exercise with an **immutable map**. **(4)**