Lab 4
Computational efficiency of sorting algorithms

Name:

For each case find five representative and equally spaced numbers corresponding to sizes
of input arrays and mark them on the horizontal axis. Perform timing measurements and
mark corresponding times on the vertical axis. As input take the array consisting of
numbers N, N-1, N-2, … , 2, 1, where N is the size of the array.

C++ quicksort with random pivot  
C++ mergesort with STL merge algorithm

C++ mergesort with your merge function  
STL sort algorithm

Java quicksort with random pivot  
Java Selection Sort
Repeat the same procedure after replacing decreasing arrays by arrays filled with random integers. Keep the same sizes as before.

C++ quicksort with random pivot          C++ mergesort with STL merge algorithm

C++ merge algorithm with your merge function  STL sort algorithm

Java quicksort with random pivot    Java Selection Sort

For every graph try to find the dependence between sizes of arrays and corresponding times (e.g. linear, quadratic, cubic, logarithmic, etc).