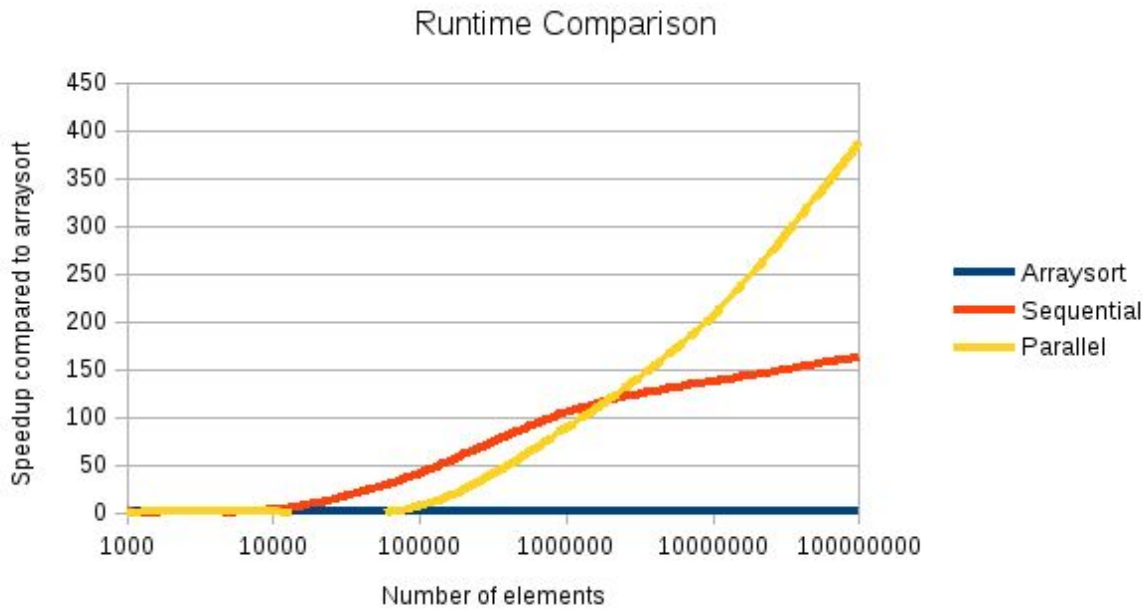
Oblig1 inf2440 Thomas Parmer

Run with:
javac Oblig1.java
java -Xmx4000m Oblig1

This might take some time, as it is running 9 times on the sequential and parallel algorithm for element size 1000...100 000 000, + Arrays.sort once for each new element size

mean of Java ArraySort on 1000 * 10^0 elements used:	0.206223 ms
mean sequential with size 1000 * 10^0:	0.215886 ms and order = true
mean on Parallel with size 1000 * 10^0:	1.068461 ms and order = true
mean of Java ArraySort on 1000 * 10^1 elements used:	1.464595 ms
mean sequential with size 1000 * 10^1:	0.406149 ms and order = true
mean on Parallel with size 1000 * 10^1:	1.389636 ms and order = true
mean Java ArraySort on 1000 * 10^2 elements used:	12.894034 ms
mean sequential with size 1000 * 10^2:	0.307463 ms and order = true
mean on Parallel with size 1000 * 10^2:	1.853928 ms and order = true
mean Java ArraySort on 1000 * 10^3 elements used:	88.398507 ms
mean sequential with size 1000 * 10^3:	0.839063 ms and order = true
mean on Parallel with size 1000 * 10^3:	0.99193 ms and order = true
mean Java ArraySort on 1000 * 10^4 elements used:	1006.025303 ms
mean sequential with size 1000 * 10^4:	7.320057 ms and order = true
mean on Parallel with size 1000 * 10^4:	4.875452 ms and order = true
Javas ArraySort on 1000 * 10^5 elements used:	10717.814965 ms
mean sequential with size 1000 * 10^5:	65.563745 ms and order = true
mean on Parallel with size 1000 * 10^5:	27.624925 ms and order = true



From the graph we see that the parallel solution is faster from around 7 million elements and up, while the Sequeltial solution is faster when number of elements is less then 7 million. Compareing with arraysort the sequential solution is Allways faster, while the parallel solution is faster from 10 thousand elements and up.

CPU information:

Architecture:	x86_64
CPU op-mode(s):	32-bit, 64-bit
Byte Order:	Little Endian
CPU(s):	8
On-line CPU(s) list:	0-7
Thread(s) per core:	2
Core(s) per socket:	4
Socket(s):	1
NUMA node(s):	1
Vendor ID:	GenuineIntel
CPU family:	6
Model:	30
Model name:	Intel(R) Core(TM) i7 CPU 870 @ 2.93GHz
Stepping:	5
CPU MHz:	1199.000
BogoMIPS:	5852.46
Virtualization:	VT-x
L1d cache:	32K
L1i cache:	32K
L2 cache:	256K
L3 cache:	8192K
NUMA node0 CPU(s):	0-7