Lab #7 Pthreads Programming II

Purpose: to learn how to write parallel programs using Pthreads.

1. (30) Convert lab#4 into Pthread program.

You need to write two programs:

- `seq.c` : Use the quicksort program in lab#4
- `para.c` : parallel version with Pthread using ***Odd-Even sorting***
  1) All threads share a global array of randomly generated numbers. The main program initializes the array.
  2) The array size *n* and the number of threads *nthreads* should be passed in from command line, such as
     Lab7 n nthreads
  3) Each thread sort *n/nthreads* number of elements in the array. You can assume that *n* can be perfectly divided by *nthreads* (number of threads).
  4) If *n<= 40*, print out the sorted global array.
  5) Set timers before creating the threads and after terminating all the threads. Run your program using different number of threads and fill out the following table.

	1 thread	2 threads	4 threads	8 threads
n=400000				
n=4000000				

  6) Analyze and explain the data in the table.