Lab7

Problem 1:

- Algorithm:

- complexity: O(n)

- compute the sum with the current element and the last element inserted in the other array

- used threadPool

- Used manualResetEvent to stop the threads in order to compute the first result and than all threads wait until they receive the result from the other computation

- Tests:

- Test 1:

- no of threads: 1

- no of elements: 100

- time taken: 00:00:00.0125155 sec

- Test 2:

- no of threads: 1

- no of elements: 1000

- time taken: 00:00:00.1340613 sec

- Test 3:

- no of threads: 1

- no of elements: 10000

- time taken: 00:00:01.3057179 sec

- Test 4:

- no of threads: 100

- no of elements: 10

- time taken: 00:00:00.0282049 sec

- Test 5:

- no of threads: 100

- no of elements: 100

- time taken: 00:00:00.0207982 sec

- Test 6:

- no of threads: 100

- no of elements: 10000

- time taken: 00:00:01.4730188 sec

- Test 7:

- no of threads: 10

- no of elements: 10000

- time taken: 00:00:01.4397401 sec

- Test 8:

- no of threads: 1000

- no of elements: 10000

- time taken: 00:00:01.2268596 sec