

6. Describe Synchronization

For Karatsuba algorithm we use 10 threads, in this case, and for each iteration, increase a counter with 2 until 10 and add in the vector of threads the lower part and in the another one the higher part. For the middle part we compute the sum of the higher part of the arrays and we do the same thing like in the first part, just increase a counter, adding the thread in the vector of threads and when the counter is greater then 10 just enter in the recursive.

For naive algorithm I did a function where compute the sum of the polynomials, there I protect the dates with a mutex, lock before computation, unlock after. We increase the index for compute the sum according to number of threads. After that just join the threads.