

Final Project Proposal:

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Proposal:

Our goal is to make a parallelized program of various multiplication algorithms such that they are faster than a standard serial computation. Our first program will be a MPI parallelized version of long multiplication using very large numbers (we still need to find a library for this). If successful, our goal is to make a second program such that we apply Karatsuba's multiplication algorithm on a macro scale such that it will be even faster than our long multiplication parallel algorithm. If this seems implausible, we can also make a program similar to our Monte Carlo pi programs, but instead trying to find the time it takes a machine to do an atomic multiplication.

Timeline:

11/23 Try to have parallelized long multiplication done before Thanksgiving break

11/30 Try to have half of parallelized Karatsuba's done

12/6 Have first draft of paper done, describing Karatsuba's algorithm and how we parallelized it

12/8 Have everything completed