

CmpE 213 HW #3  
Topic: MPI Algorithm

Group assignment

Due: April 19, 2007

Consider the Sieve of Eratosthenes algorithm for finding all prime numbers up to a specific number. Develop a parallel version of this algorithm that can run on  $p$  processors. Write an MPI code to implement the parallel version of the algorithm. Test your code on  $p$  processors, where  $p$  is 1, 2, 4, and 8, and using up to 100 million numbers. The report should include the code, a description of the parallel algorithm and the timing results.