

CS 4973 - Mersenne Prime Project

Assignment 5 - Due 2019.09.27

Overview: The purpose of this assignment is to construct a program which will split a problem into pieces across multiple processes.

Details:

The idea for this program is rather simple. You are to categorize all the prime numbers less than the size of *unsigned long long int max value*. The categorization is as follows:

- (1) Tabulate the number of primes in the given range which end in each of the digits 1, 3, 7 and 9.
- (2) Calculate the total number of primes in the given range.
- (3) Calculate the maximum, minimum, and average distances between successive primes in the given range.

It is completely up to you how you break up the problem, but think about it before you start writing it out. The goal here is to not only accomplish this task, but to do so quickly. So make sure you pay attention to the runtime as well!