

CS200 - Programming Assignment 4

Due: Monday, Oct. 16. Must be uploaded to Canvas before the beginning of class.

Please read the sections of the syllabus on programming assignments and honor code before starting this homework.

1. **[30 Points]** When a proof by cases involves many cases, a computer can sometimes be very helpful. We often call a proof with many cases where we just check all of the cases “Proof by Exhaustion” or “Proof by Exhaustive Search.” Write a program to prove that $n^2 + n + 41$ is prime for all positive integers n such that $n < 40$. (Please write your own code to test if a number is prime.)

Put a multi-line comment at the beginning of your program. It should contain:

- Your name
- Programming Assignment 1
- The name of anyone you worked with
- The number of hours you spent on this assignment