CSE-5250 Programming Assignment 2

**Part 1: Matrix Multiplication with OpenMP (30 points)**

Write a program that calculates the product of two matrices, using a parallel for loop. Note that this requires writing a triply-nested for loop, and making one of the for loops parallel.

**Part 2a: Finding Pythagorean Triples with OpenMP (15 points)**

Write a program that calculates Pythagorean triples using nested for loops. The Pythagorean Theorem states the following:

Where a, b, and c are whole numbers.

**Part 2b: Modifying the Pythagorean Theorem (5 points)**

Modify the Pythagorean Theorem by either adding or subtracting a times b on the left-hand-side, and run the program again. Are there integer solutions for this?

**For each part of the lab (parts 1, 2a, and 2b), submit the following:**

* The source code.
* A screenshot of the program running.