Homework 3

1. Run hw4a.c, hw4b.c and hw4c.c and explain the output in a .txt file. Hint: thread 0 local storage appears to be allocated in the main stack. OpenMP does not specify where storage must be allocated, only that thread local storage not be shared among threads executing in parallel.

2. Write programs that give different outputs depending on whether a *critical* construct is used, or either a *master* or *single* construct is used. That is, the critical output should differ from what you get with either a master or single construct. The different output shouldn't just be printing out a thread number or "master", "critical", "single".

3. Write a program that uses an OpenMP parallel sections to execute two function invocations in parallel. The functions can do anything with some computation, e.g., matrix multiple where the result matrices are different.

4. Write a program that shows the difference in the number of loop iterations executed depending on whether the loop immediately follows a *#pragma omp parallel* or a *#pragma omp parallel for*.

What to turn in: Each of 1, 2, 3 and 4 should be subdirectories 1, 2, 3 and 4 of directory <username>. Turn in a zip file of <username>.zip as your solution. As always, do not turn in executables.