Name: Shengyuan

Total points: 33/33

**CODE: 10 points total**

| **Requirement** | **Points** | **Comment** |
| --- | --- | --- |
| Timing (4 points) | | |
| * Start timing using barrier and one process getting the time (2) * End timing using barrier and one process getting the time (2) | 4 |  |
| Communication (6 points) | | |
| * 10.1.2 (2 points) * 10.1.3 (2 points) * 10.1.4 (2 points) | 6 |  |

**REPORT: 23 points in total**

| **Requirement** | **Points** | **Comment** |
| --- | --- | --- |
| Your name and general formatting (1) | 1 |  |
| Well-written prose explaining the setting of work (4 points) | | |
| 1. Updates to the code sections to enable parallelism. (2) 2. What parallel patterns you found in this code.(2) 3. How to compile the code. (0.5) 4. How to run the versions of the program. (0.5) | 4 |  |
| Well-written prose explaining the methods you used to obtain your data, including: (7 points) | | |
| 1. Describe the cases that you chose to run **in detail** and why you chose them. (3) 2. How you generated your data. (1) 3. Description of your methodology: how many times you ran your experiments and what conditions you used (i.e. cases you tried). (3) | 7 |  |
| Well-written prose containing your findings regarding the weak scalability of the parallel version, including an explanation of your results. Use tables or graphs to depict your results. Include: (10 points) | | |
| 1. Clear explanation of test cases you tried, (2 points)    1. In your report, show the choices you made for problems sizes and the resulting times that you were able to obtain. 2. Tables or Graphs depicting weak scalability (3 points) 3. Explanation of results. (4 points)    1. Address at what condition the program exhibits weak scalability.    2. Reference to obtained experimental results 4. Given your results, does Gustafson's 'law' come to the rescue in terms of the efficacy of the MPI implementation? (1 point) | 10 |  |
| **TOTAL** | 23/23 |  |