

Assignment 1

Problem: Compute the sum of the First N natural numbers.

The sequential version is provided in a file attached {sum.c}

Questions:

1. Develop two parallel versions of the given program using OpenMP 'parallel for' (without 'reduction' clause) with maximum 8 threads.

Compilation command: gcc -O0 ...

2. Submit a report on:

(i) The speedup and efficiency of both parallel versions for 2, 4, 8 threads for $N=10^3$, $N=10^5$, and $N=10^7$ numbers.

(ii) Does the speedup follow Amdahl's law?