Northern Michigan University (Marquette Co, MI)
CS 444-01-25F: Parallel And Distributed Processing

Program 3
Due: Monday 29 September 2025 9:00 A.M. EDT

Parallel Merge Sort Part 2

Create a folder called "PG3" in the top level of your CS444-01-25F folder. Place all files pertaining to this assignment into the top level of your PG3 folder. Place a (possibly empty) file called "DONE" into this folder when you are ready to have your programs graded. The only files you need to turn in are the .cc and .h files. Please don't turn in any files other than these!!

Modify your merge sort so that the merge operation runs in parallel as well as the recursive sorting portion. Note that your sort operation should now run in $\Theta (\lg^2 n)$ time. This means that there should be no loops going from 1 to n (or thereabouts) in your program since this program should be faster than that. The one exception is in setting up threads; we "pretend" that starting and joining threads takes zero time.