# Final Exam
## Winter 2024

**Name** _____

**Net ID** _____ (@uw.edu)

**Academic Integrity:** You may not use any resources on this exam except for writing instruments, your own brain, and the exam packet itself. This exam is closed notes, closed neighbor, closed electronic devices, etc.. The last two pages of this exam provide a list of potentially helpful identities as well as room for scratch work (respectively). No markings on these last two pages will be graded. Your answer for each question must fit in the answer box provided.

**Instructions:** Before you begin, **Put your name and UW Net ID at the top of this page.** Make sure that your name and ID are LEGIBLE. Please ensure that all of your answers appear within the boxed area provided.

| Section | Max Points |
|---|---|
| Asymptotic Analysis | 14 |
| Pre-Midterm Data Structures | 13 |
| Hash Tables | 14 |
| Sorting | 9 |
| Graphs | 18 |
| Parallelism | 12 |
| Concurrency | 15 |
| P vs NP | 5 |
| Extra Credit | (+2) |
| Total | 100 |