1. (1 pt.)

   - This *quick check* is **closed book, notes, etc.**
   - Use the **classroom and textbook conventions** and terminology.

   Read the above carefully; then write your name below:

2. (2 pts.) Merging of sorted arrays can be done in _____
   time. [Provide big-Theta bound or equivalent.]

3. (2 pts.) How does quicksort use the special element called the *pivot*?

4. (3 pts.) (1) Is quicksort an *in-place* sorting method? Also answer this question
   replacing quicksort with (2) mergesort and (3) heapsort. [Based on the textbook's
   algorithms and implementations.]

5. (2 pts.) Define *k-generalized Fibonacci numbers* as used in Reynolds's paper.