Today: Term project proposals due. Sorting; §§ 8.{5–8}, 21.{5,6},
Next class: Synthesis, catch-up, and review.
Reminders: Midterm exam 2 next week. Read material, incl. code, *before and after* class.

1. Write your group identifier (e.g., C3) and its members' names Underline your name.

2. Trace the action of *merge sort* on the following array:

   Clearly indicate the recursive invocations of merge sort and the arguments to, and results of, merging at each stage.

   ```
   59 84 36 43 30 50 13 25 56 21
   ```

3. Trace the action of *quicksort* on the data of Question 2, using the first element of each sub-array as the pivot (N.B. for demonstration only; not a good implementation choice).

   For each recursive invocation of quicksort, clearly indicate the sub-array, the pivot, and the result of partitioning on that pivot.

   ```
   59 84 36 43 30 50 13 25 56 21
   ```

4. Count the exact number of *comparisons* and *swaps* made by each application of sorting in the above questions.