

Activity Sheet 8

Manager name:

Recorder name:

Speaker name:

Section 5.1

1. Consider the problem of finding the location of the largest element in an unsorted array (if many elements achieve that largest value, return the first of them).
 - a. Write a brute-force algorithm for this problem, and determine its time complexity.
 - b. Write a recursive decrease-by-one-and-conquer algorithm for this problem, and determine its time complexity via a recurrence relation (and optionally using the master theorem, or solving directly).

- c. Write a divide-and-conquer algorithm for this problem, and determine its time complexity via a recurrence relation and using the master theorem.