

5. Sorting

Motivation

- Have already seen binary search - fast to search through data if it is sorted
- Many other applications to sorting as well
- Example:
 - Unsorted: $A = [1\ 3\ 2\ 4\ 3\ 5]$
 - Sorted: $A = [1\ 2\ 3\ 3\ 4\ 5]$
- There are both simple and complex ways to sort, will see that it is generally possible in $O(n \log n)$ time