

## **COP 3503 Honors – Homework 3 (Collaborative)**

**Due Date: October 6, 2021**

1. (10 pts) Develop an algorithm that given an array  $A$  with  $n$  elements and an integer  $k \leq n$  determines the  $k$  numbers in  $A$  that are closest to the median of  $A$ . Your algorithm should not use sorting.
2. (10 pts) Cormen et al., page 200, Exercise 8.3-2
3. (20 pts) Cormen et al., page 223, Exercise 9.3-8
4. (10 pts) Cormen et al., page 370, Exercise 15.1-3