

COP 3503 Honors – Homework 3 (Collaborative)

Due Date: September 25, 2025

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 215, Exercise 8.3-2
3. (20 pts) Cormen et al., page 243, Exercise 9.3-10
4. (10 pts) Cormen et al., page 373, Exercise 14.1-3