1. (10 pts) Develop an algorithm that given an array A with n elements and an integer k <= 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