1. CLRS Problem 6.2. (20 points)
2. CLRS Problem 9.2. (30 points)
3. CLRS Problem 7.5. (30 points)
4. Let A and B be sorted lists each of length \( n \). Design an algorithm that can find the median of both lists (i.e., if they were merged) in \( O(\log n) \) time. Note that you cannot merge the lists in \( O(\log n) \) time. (20 points)