

# Practice questions from the book for test 1

This refers to the 3rd edition of CLRS. Page and exercise numbers in parentheses ( ) refer to the 2nd edition of CLRS. Exercises in brackets [ ] refer to harder exercises.

- Analyzing Algorithms:
  - page 22 (21): 2.1-3,4
  - page 29 (27): all exercises
  - page 39 (36): 2.3-3,4,5,6
  - page 39 (37): 2-1,2,3
- Asymptotic Notation:
  - page 52 (50): 3.1-1,3,4,5,6 [3.1-2]
  - page 61 (58): 3-2,3,4
- Divide-and-Conquer and Recurrences:
  - page 87: 4.3-1,2,3,4,6,7,8 (page 67: 4.1-1,2,3,5)
  - page 92: 4.4-1,2,3,4,5,6,7 [4.4-8,9] (page 72: 4.2-1,2,3,4 [4.2-5])
  - page 96: 4.5-1,2,3 (page 75: 4.3-1,2,3)
  - page 107 (85): 4-1,3,4, [4-2]
  - page 82: 4.2-1,2,4,5,6,7 (page 741: 28.2-1,2,3,4,5,6)
- Probability and Randomized Algorithms:
  - page 1194: C.2-1, [C.2-3] ( page 1105: C.2-2, [C.2-3])
  - page 1200 (1110): C.3-1,2,3,4
  - page 122 (98): 5.2-1,2,3,4
  - page 143 (118): [5-2]
- Quicksort:
  - page 173 (148): all exercises
  - page 178 (153): 7.2-1,2,3
  - page 189 (163): [7-6]
- Sorting:
  - page 193 (167): 8.1-1
  - page 196 (170): 8.2-1,2,3, [8.2-4]
  - page 199 (173): 8.3-1,2,3,4

- page 206 (178): 8-2,3
- Order Statistics:
  - page 219 (189): 9.2-3,4
  - page 223 (192): 9.3-5,7,8, 9-1,2