

Practice questions from the book

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, [3.1-2]
 - page 61 (58): 3-2,3,4
- Heapsort:
 - pages 129, 132, 135: all exercises
 - page 136: 6.4-2, 6.4-3
 - page 142: 6.5-1,2,3,4,5,6,7,8, 6-1, 6-2
- Divide-and-Conquer and Recurrences:
 - page 87: 4.3-1,2,3,4,6,7,8 (page 67: 4.1-1,2,5)
 - page 92: 4.4-1,3, [4.4-4] (page 72: 4.2-1,3, [4.2-4])
 - page 96: 4.5-1,3, [4.5-2] (page 75: 4.3-1,3, [4.3-2])
 - page 107 (85): 4-1,3,4
 - page 82: 4.2-1,2,5 (page 741: 28.2-1,2,5)
- Probability and Randomized Algorithms:
 - 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, [9-2]
- Red-Black Trees:
 - page 311 (276): 13.1-1,2,3,4,5,6
 - page 313 (278): 13.2-1,3
 - page 322 (287): 13.3-2,3,5
- B-Trees:
 - page 490 (440): 18.1-1,2,3,4,5
 - page 497 (447): 18.2-1,2,3,6
- Dynamic Programming:
 - page 389 (349): 15.3-2
 - page 396 (355): 15.4-1,2,3,4, [15.4-5]
 - page 406 (366): [15-5]
- Greedy Algorithms:
 - page 427 (384): 16.2-1, 16.2-2, [16.2-3], 16.2-4
- Graph Algorithms:
 - page 589 (530): 22.1-1, 22.1-2, 22.1-3, 22.1-4, 22.1-5
 - page 601 (538): 22.2-1, 22.2-2, 22.2-4 (22.2-3), 22.2-4 (22.2-6), [22.2-6 (22.2-5)]
 - page 610 (547): 22.3-1, 22.3-2, 22.3-10 (22.3-9), [22.3-11 (22.3-10)]
 - page 614 (551): 22.4-1
- Minimum Spanning Trees:
 - page 629 (567): (23.1-8)
 - page 637 (573): (23.2-1), 23.2-2
 - page 640 (577): (23-4)
- Shortest Paths:
 - page 654 (591): 24.1-1, 24.1-2, 24.1-3, 24.1-4
 - page 657 (594): 24.2-1, (24.2-2)

- page 662 (600): 24.3-1, 24.3-2, 24.3-3
- page 677 (614): (24.5-8)
- NP-Completeness: (Only for extra credit)
 - page 1100 (1017): 34.5-1, (34.5-2), 34.5-3, 34.5-5, 34.5-7