

Practice questions from the book

- Analyzing Algorithms:
 - page 21: 2.1-3, 2.1-4
 - page 27: all exercises
 - page 36: 2.3-3, 2.3-4, 2.3-5, 2.3-6
 - page 37: 2-1, 2-2, 2-3
- Asymptotic Notation:
 - page 50: 3.1-1, 3.1-2, 3.1-3, 3.1-4, 3.1-5, 3.1-6
 - page 58: 3-2, 3-3, 3-4
- Recurrences:
 - page 67: 4.1-1, 4.1-2, 4.1-3, 4.1-5
 - page 72: 4.2-1, 4.2-2, 4.2-3, 4.2-4, (4.2-5)
 - page 75: 4.3-1, 4.3-2, 4.3-3
 - page 85: 4-1, (4-2), 4-3, 4-4
- Heapsort:
 - pages 129, 132, 135: all exercises
 - page 136: 6.4-2, 6.4-3
 - page 142: 6.5-8, 6-1, 6-2
- Probability and Randomized Algorithms:
 - page 1105: C.2-2, (C.2-3)
 - page 1110: C.3-1, c.3-2, C.3-3, C.3-4
 - page 98: 5.2-1, 5.2-2, 5.2-3, 5.2-4
 - page 118: 5-2
- Quicksort:
 - page 148: all exercises
 - page 153: 7.2-1, 7.2-2, 7.2-3
 - page 163: 7-6
- Sorting:
 - page 167: 8.1-1
 - page 170: 8.2-2, 8.2-3, 8.2-4

- page 173: 8.3-1, 8.3-2, 8.3-3, 8.3-4
 - page 178: 8-2, 8-3
- Order Statistics:
 - page 189: 9.2-3, 9.2-4
 - page 192: 9.3-5, 9.3-7, 9.3-8, 9-1, 9-2
- Augmenting Data Structures:
 - page 307: 14.1-1 - 14.1-5, (14.1-6)
 - page 310: 14.2-1,2,3
 - page 317: 14.3-3, (14.3-4), 14.3-5
- Amortized Analysis:
 - page 409: 17.1-1, 17.1-3
 - page 412: 17,2-1, 17.1-3, 17.2-3
- Red-Black Trees:
 - pages 276–277: 13.1-1 until 13.1-6
 - page 278: 13.2-1, 13.2-2, 13.2-3
 - page 287: 13.3-2
- B-Trees:
 - page 440: 18.1-1 until 18.1-4
 - page 447: 18.2-1, 18.2-3, 18.2-6
- Dynamic Programming:
 - page 338: 15.2-1, 15.2-3
 - page 349: 15.3-2, 15.3-3
 - page 355: 15.4-1, 15.4-2, 15.4-3, 15.4-4
- Greedy Algorithms:
 - page 384: 16.2-1, (16.2-3)
- Amortized Analysis:
 - page 409: 17.1-1, 17.1-3
 - page 412: 17,2-1, 17.1-3, 17.2-3
- Disjoint Sets Data Structures:
 - page 502: 21.2-1 – 21.2-4
 - page 509: 21.3-1, 21.3-3
- Graph Algorithms:

- page 530: 22.1-1, 22.1-2, 22.1-3
- page 538: 22.2-1, 22.2-2, 22.2-3, 22.2-5, 22.2-8
- page 548: 22.3-2, 22.3-9, 22.3-10, 22.3-11
- page 551: 22.4-1
- page 558: 22-1
- Minimum Spanning Trees:
 - page 567: 23.1-8, 23.1-9
 - page 573: 23.2-1, 23.2-2, 23.2-8
 - page 577: 23-4
- Shortest Paths:
 - page 591: 24.1-1, 24.1-2, 24.1-4
 - page 594: 24.2-1, 24.2-2
 - page 600: 24.3-1, 24.3-2, 24.3-3
 - page 614: 24.5-8
 - page 634: 25.2-1
- NP-Completeness:
 - page 983: 34.2-2, 34.2-6
 - page 1017: 34.5-1, 34.5-2, 34.5-3, 34.5-5, 34.5-7
- Approximation Algorithms:
 - page 1027: 35.1-1, 35.1-4
 - page 1033: 35.2-3