

Synthesis Assignment 3
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CS 5800: Algorithm
Synthesis Assignment 3

6 Greedy Algorithms Continued

6.1 Encodings Huffman's Encoding Algorithm

6.11 Basic Definition

6.12 Exercise

6.13 Solution

6.2 Greedy Algorithm Design

6.21 Explanation

6.22 Exercise

6.23 Solution

7 Dynamic Programming

7.1 Technique Definition

7.11 Basic Definition

7.12 Exercise

7.13 Solution

7.2 Edit-distance

7.21 Explanation

7.22 Exercise

7.23 Solution

7.3 Knapsack (both 0-1 and unrestrained)

7.31 Explanation

7.32 Exercise

7.33 Solution

7.4 Dynamic Programming Algorithm Design

7.41 Explanation

7.42 Exercise

7.43 Solution

8 Linear Programming

8.1 Technique Definition And Problem Specification

8.11 Basic Definition

8.12 Exercise

8.13 Solution

9 NP-Completeness

9.1 Definition (no problem/solution required)

9.11 Basic Definition

9.12 Exercise

9.13 Solution

9.2 SAT and 3SAT