Discrete II Homework Problems

Section 6.1: 4, 5, 7, 9, 10, 11, 13, 14, 15, 16, 18, 20, 21, 23, 26, 28, 30, 31, 34, 38, 41, 44, 43, 47, 50, 52, 53, 54, 64, 67, 72, 86, 89

(Optional) Section 6.1: 92, 97, 99

Section 6.2: 1, 4, 10, 12, 16, 21, 25, 26, 28, 33, 36, 43, 44, 45, 46, 49, 52, 55, 60, 63, 65, 82

(Optional) Section 6.2: 73, 76, 79 – These involve Catalan Numbers which we'll see later

-- End homework 1; due Monday January 22nd –

Section 6.3: 3, 4, 6, 11, 14, 15, 16, 17, 18, 22, 23, 24, 25, 26, 31, 35, 36, 39, 42, 45

(Optional) Section 6.3: 47, 48, 49

Section 6.4: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13.

For problems 9-13, note that algorithms 6.4.9 and 6.4.14 are the two algorithms we learned in class.

(Optional) Section 6.4: 14, 15, 16, 19, 22

-- End homework 2; due Monday January 29th –

Section 6.5: 4, 5, 11, 12, 14, 17, 20, 26, 28, 29, 30, 31, 33, 41, 45

Section 6.6: 1, 4, 7, 11, 14, 15, 16, 17, 18, 19, 22, 23, 25, 31, 32, 33, 34, 41

Section 6.6: 46, 47, 48, 49, 45

Section 6.7: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

 (Optional) Section 6.7: 15

Section 7.1: 1, 2, 3, 5, 6, 7, 9, 13, 18, 19, 20, 32

Section 7.2: 14, 15, 16, 17, 18, 21, 22, 23, 34

-- End test 1 material –

-- End homework 3; due Monday February 12th; 10% bonus on the homework if turned in by 9am on Thursday –

Section 7.2: 41, 42, 43, 44, 45, 46

(Optional) Section 7.2: 47, 48

Section 7.3: 1, 4, 5, 6, 12b, 18, 19, 20, 21, 23, 24, 26, 27, 28, 29, 30, 31, 32

(Optional) Section 7.3: 39, 40, 41, 42, 43, 44

Section 2.1 (Integer Representations of Operations – PDF text): 1, 2, 3, 5, 6, 7, 18, 19, 20, 22

(Optional) Section 2.1: 1, 2 (in Programming Projects)

-- End homework 4; due Monday February 19th –

Section 2.2 (Integer Representations of Operations – PDF text): 1, 2, 3, 5, 6, 9, 10, 11, 13, 14, 15, 22
(Optional) Section 2.2: 1, 3 (in Programming Projects)
Section 2.3 (Integer Representations of Operations – PDF text): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 16
(Optional) Section 2.3: 20, 21, 22, 23; 1, 2 (in Programming Projects)
Section 8.1: 1, 4, 5, 8, 11, 13, 17, 18, 15, 37, 40, 41, 49
Section 8.2: 1, 4, 7, 10, 13, 16, 19, 22, 24, 28, 29, 30, 31, 36, 37, 41

-- End homework 5; due Monday February 26th –

Section 8.3: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 14, 15, 16, 19, 36
Section 8.4: 1, 2, 3, 4, 5

-- End homework 6; due Monday March 5th –

Section 8.5: 1, 2, 3, 5, 6, 7, 10, 13, 14, 15, 16, 24
Section 8.6: 1, 2, 3, 4, 7, 8
Section 9.1: 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 13
Section 9.2: 7, 8, 9, 19, 11, 12, 13, 14, 15, 16, 22, 23, 24, 25, 26
Section 9.4: 1, 2, 3, 4, 5

-- End homework 7; due Monday March 12th –

Section 9.5: 1, 2, 3, 4, 5, 9, 10, 11, 15
Section 9.6: 1, 2, 3, 4, 5

-- End homework 8; due Monday March 26th –

Section 9.6: 6, 7, 9, 11, 12, 14, 16, 17, 19
Section 9.8: 1, 4, 7, 9, 11, 12, 13, 14

-- End homework 8; due Monday April 2nd –

Section 12.1: 1, 2, 3, 4, 6, 7, 9, 11, 12, 13, 14, 17, 18, 20, 21, 24, 25, 28, 29
Section 12.2: 1, 2, 4, 5, 7, 9, 11, 13, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 27, 30
Section 12.3: 1, 2, 3, 4, 7, 8, 10, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 28, 29, 30, 31, 34

-- End homework 9; due Monday April 9th –

Section 12.4: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 17, 21, 22, 23
Section 12.5: 1, 2, 5, 7, 10

-- End homework 9; due Wednesday April 18th –

Problems marked in purple as optional are problems that you can solve with the material we cover. They're interesting in some way – perhaps an application, proof, example, or computer program. However, it's not worth our time to talk about that specific problem so we're not going to. You might try them anyway to reinforce your understanding of the concepts by applying them to things we haven't seen in class!!