

Math 303 Assignments

Spring 2010

Exam 1: Thursday, February 4th

Chapter 1. The Foundations: Logic and Proofs

1.1, 1-35 odd

1.2, 1-33 odd

1.3, 1-35, 39, 41, 45

1.4, 1, 3, 5, 9, 17a-d, 25a-d, 27a-f, 31a-d

1.5, 3a-e, 5, 9a-f, 15a-d, 19a-c

1.6, 1-27 odd

1.7, 1, 3, 7, 9, 15, 17, 19, 25, 27. Find the least number of queens needed to cover every square on a 8 by 8 chess board.

Chapter 2. Basic Structures: Sets, Functions, Sequences, and Sums

2.1, 1-27 odd, 30

2.2, 1, 3, 15, 17, 19, 25, 27, 29, 49a,b,c,d, 51,53

2.3, 1a-c, 3a-c, 5a-d, 7a-d, 9a-h, 12a-d, 13, 17, 19, 27, 35, 39, 47, 59, 65.

2.4, 1a-d, 3a-d, 5a-h, 9a-h, 13a-d, 15a-d, 17a-d, 21, 23.

Chapter 3. The Fundamentals: Algorithms, the Integers, and Matrices

3.1, 1,3,5,13,35,39,41,53, 58

3.2, 1,3,6,7,9,11,19,21,23,37

3.3, 1,3,5,11

3.4, 1,5,7,9,11,17,19,21

3.6, 1-17 odd

Chapter 4. Induction and Recursion

4.1, 5,7,9,11,19,21,31,33

4.2, 1,3,5,7

4.3, 3a-d,5a-e,7a-d,9,13,23,25.

Chapter 9. Graphs

9.1, 1,3,5,7,9,15

9.2, 1,3,5,7,19,20,21,23,25,29,31,35,37a-c,47,49,53,55

9.6, Shortest Paths, Dijkstras Alg., 3,4,9,

Chapter 10. Trees

10.4, Spanning Trees, Depth-first, Breadth-first, 1,3,5,7,9,13,15,17,18.