Todo list

General notes about the book.... 1

Chapter 1. Resources and Notation

90% complete. Goal 80% completion date: Done

Notes: 3

Chapter 2. Mathematical Programming

50% complete. Goal 80% completion date: July 20

Notes: 7

Add discussion of Optimization, Operations Research, and Mathematical Programming including background and applications. Also, give an introduction to the content in this book, what you will learn by working though the book, and why this book is interesting and different from other sources. 7

Describe applications and andd images 8

Fill in this section with formulas and discuss applications. 12

Part I: Linear Programming

Notes: This Part applies to DORI. We hope for 80% completion by January 2023, and 100% completion for January 2024 15

Chapter 3. Modeling: Linear Programming

50% complete. Goal 80% completion date: July 20

Notes: 17

Section 3.1. Modeling and Assumptions in Linear Programming

20% complete. Goal 80% completion date: July 20

Notes: Clean up this section. Describe process of modeling a problem. 18

Section 3.2. Examples

40% complete. Goal 80% completion date: July 20

Notes: Clean up this section. Finish describing several of the problems, give examples for all problem classes and attach code to all examples. 21

Add mathematical model 28

Fill in this subsection 29

Fill in this subsection 29

Section 3.3. Modeling Tricks

40% complete. Goal 80% completion date: July 20

Notes: Only one modeling trick listed here. Discuss absolute value application and also making a free variable non-negative. 34

Chapter 4. Graphically Solving Linear Programs

50% complete. Goal 80% completion date: July 20

Notes: 37

Section 4.1. Nonempty and Bounded Problem
20% complete. Goal 80% completion date: July 20
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Section 4.2. Infinitely Many Optimal Solutions
20% complete. Goal 80% completion date: July 20
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20% complete. Goal 80% completion date: July 20
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20% complete. Goal 80% completion date: July 20
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Chapter 8. Duality
0% complete. Goal 80% completion date: July 20
Notes: This is a borrowed section. Likely we should update this to match out CC-BY-SA 4.0 license. Also, update all content to match notation in the book. . . . 111
Chapter 9. Sensitivity Analysis
0% complete. Goal 80% completion date: July 20
Notes: Need to write this section. Add exmaples from lecture notes. Create code to help generate examples. . . . 125
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10% complete. Goal 80% completion date: July 20
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