Due: Monday, February 10th (11:59 p.m. PT.)

References are to the course textbook (Baker, 3rd edition), except as noted.

Reading

For Monday, February 3rd, to the end of Chapter 4.

For Wednesday, February 5th, Chapter 6. (Note we do not cover Chapter 5.)

For Monday, February 10th, Chapter 7.

Exercise to hand in

Read the *Case: Cox Cable and Wire Company* at the end of Chapter 4 in the textbook.

The spreadsheet used for the analysis is available in the Extras section of the `Canvas` site, as well as on the Website for the Second Edition of the text (strangely I couldn't find it among the Third Edition materials). The analysis is built on a linear programming formulation of the production model.

1. Write an introduction to the linear programming model suitable for someone who has completed this class. It should clearly identify variables, bounds, objective function, constraints and the solution using appropriate mathematical notation. The description should be in clear and concise English sentences, and carefully tie the formulated program to the case.

2. Interpret the sensitivty analysis provided on this sheet for someone who has completed this class. Again, make sure that the interpretation is closely tied to the case presented.

3. Analyze two potential risks identified during the interviews with Cox Cable personnel by looking at the effects of a range of plausible values of that parameter, and detailing the consequences. Include a graph for each.

4. Identify two additional plausible potential risks not mentioned in the interviews, and perform analyses for these.

5. Prepare a non-technical one-page briefing for the president of Cox Cable that includes benefits and risks of the proposed contract, and identifies critical factors for to keep in mind for the negotiation.

This problem requires detailed written answers, typeset in LaTeX. Submission is to `Crowdmark`.