

Problem Set 8

Due: Tuesday, November 18, 2014

Readings: The parts of chapter 9 from [BT] that we covered in class.

Problem 1: Exercise 9.5 of [BT]

Problem 2: Exercise 9.10 of [BT]

Note: These problems are more open ended than usual. I am not looking for a complete answer but for evidence that you tried and in the process you sharpened your understanding of interior-point methods. Use Matlab to implement the algorithms. You can work in teams of two and split the implementation work, but each one should write her/his own observations and conclusions. In Problem 1, you are asked to compare the performance of the interior-point algorithm with the simplex method. You can use CPLEX to solve the LP with the simplex method and observe the path that simplex follows to discover the optimal solution.