CS / ISyE 730 - Spring 2016 - Homework 5

(assigned 2/24/16, due in class 3/2/16)

1. Implement the augmented Lagrangian approach for problem (17.3) in the text. To solve the subproblem, use Newton's method, with a line-search or trust-region globalization technique. (You may have implemented it in 726.) Try different values of parameter μ_k and different starting points. Terminate when the norm of the KKT conditions falls below a small threshold e.g. 10^{-8}. Briefly discuss your experience.

2. Repeat Q1, but on the problem from Exercise 18.3 in the text.

3. Do Exercise 17.12.