Linear & Nonlinear Programming

Homework Set 1

DUE: 6:00 pm, Oct 10, 2018

1. Give a problem not in NP.

2. Prove the recursive algorithm(given in class) is not a polynomial time algorithm for the partition problem.

3. P338, Exercise 7.1, Problem 7 (a)(b).

4. P349, Exercise 7.2, Problem 3 (choose one problem to finish).

Reading Assignment:

Section 7.1: 阅读in NP的证明例子, 熟悉guess and verify的过程(特别困难的可以省略).

Section 7.2: Understand exmaples 7.21 7.23 7.26 (if time allows, read more).

Section 7.3: Understand NP-Hard and NP-Complete. Cook's thm: you have to know it, but are not required to read the whole proof.

Section 7.4: Read as many examples as you can.