

Exercises

Textbook Chapter 4

- (1) 4.8 (a), (b)
- (2) 4.9
- (3) 4.10
- (4) 4.11
- (5) 4.12
- (6) Construct an explicit example for each of the following cases:
 - (a) Both of the primal problem and its dual problem have a non-empty bounded feasible domain.
 - (b) Both of the primal problem and dual its problem are feasible, but one has a bounded feasible domain while the other has an unbounded feasible domain.
 - (c) Both of the primal problem and its dual problem are infeasible.
 - (d) One of the primal-dual pair is feasible while the other is infeasible.
- (7) Can you construct an example for each of the following situations? Why?
 - (a) Both of the primal problem and its dual problem are unbounded.
 - (b) A primal problem and its dual problem have the same feasible domain.
 - (c) A primal problem and its dual problem are exactly the same.