

Practice problems (don't turn in):

1. [DPV] Problem 7.1 and:
Can you use the dual LP to prove it's optimal?
 2. [DPV] Problem 7.4 (LP for Duff beer)
 3. [DPV] Problem 7.5 (LP for canine products)
 4. [DPV] Problem 7.6: Give an example of an LP with unbounded feasible region but bounded optimum.
 5. [DPV] Problem 7.11 (dual to the example)
 6. [DPV] Problem 7.12 (prove that point $(1.5, 5, 0)$ is optimal)
 7. [DPV] Problem 8.13 (several NP-complete graph problems that can be proved by generalization, review 8.10)
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Problem 1 Max-flow variants

[DPV] Problem 7.18 parts c and d (max-flow variants using LP)

Note: For (d), assume you are trying to maximize flow into t , so as to capture the advantage of paths that avoid particularly lossy nodes or that visit fewer nodes (and thus incur fewer losses). [Think to yourself about why this clarification is necessary].

Problem 2 Reduction

[DPV] Problem 8.9 (Hitting set)