

## Homework 4: Chapter 2

**Reading:** Chapter 2 pgs 11-15

**Exercises**

1. 2.1(c,d), 2.7, 2.8, 2.9
2. (optional) Recall the EXTREMELY FALSE Claim F from class:

Claim F: Every Condorcet candidate is a majority candidate.

You've seen counterexamples to this claim. Construct a counterexample with  $n$  and  $N$  as small as possible.

3. (optional) Practice proving these claims:
  - (a) If  $n \leq 3$ , then elimination and runoff choose the same winners.
  - (b) If  $n = 2$ , then runoff and pairwise comparison choose the same winners as plurality.
  - (c) There can only be at most one majority cand. in an election.
  - (d) There can only be at most one condorcet cand. in an election.

Solutions to exercises from the book.

Solutions to optional problems.