

# Manipulability of Voting Systems

Read the book chapters first, then make sure you can answer the questions in the notes. Following that, work on some skills-check problems and exercises. Then take the online quizzes.

**Reading** 10.1-10.4

**Skills Check** 7, 11, 13, 15, 27

**Exercises** 7, 9, 10, 11, 16, 18, 19, 23, 24

**Quiz** No quiz this week

## 10.1

- When precisely do we say that a voting system is *manipulable*?

## 10.2

- Explain why Condorcet's Method is non-manipulable.

## 10.3

- Show that the Borda Count on 3 candidates is non-manipulable, but on 4 or more candidates it is manipulable.
- Show that the Hare system is manipulable.
- Show that the Sequential Pairwise Voting system is manipulable.

## 10.4

- What does the Gibbard-Satterwaite Theorem say?