

Math 110: Week 12. Name _____

Attach additional pages if needed.

1. a) Look up the following information about the 2000 Presidential Election in Florida. Use a reputable source (e.g., online Federal Election Commission, etc.).

Candidate	Bush	Gore	Nader
Vote Total			

Source:

- b) In this race, Nader was the most liberal candidate, then Gore, while Bush was the most conservative. So it is likely that if Nader had not been on the ballot, the majority of his supporters would have voted for Gore. Assume that Nader did not run and that just a very small majority of his votes went to Gore. In particular, assume 50.5% of the votes Nader received went to Gore and 49.5% went to Bush. Who would have won Florida's electoral votes? [Most analysts believe that Gore would have won far more of Nader's votes than this.]

Candidate	Bush	Gore
Old Vote Total		
Additional Votes		
New Vote Total		

- c) Was Nader a spoiler or a vote splitter? (Explain)

- d) How many Electoral College votes does Florida have?
- e) Would the Electoral College votes and national election have changed under the assumptions in part (b)? You will need to look up the original Electoral College Total.

Candidate	Bush	Gore
Original National Electoral College Total		
New Electoral College Total Using Part (b)		

Source:

2. Consider the following preference ballot results with for an election with four choices.

	6 Voters	6 Voters	4 Voters	3 Voters	4 Voters	4 Voters	Plurality	Instant Runoff	Vote-for-Two
A	1	4	4	1	1	4			
B	4	1	2	3	2	3			
C	2	2	3	2	4	2			
D	3	3	1	4	3	1			

a) Who is the plurality winner? Why?

b) Who is the plurality with instant runoff winner? Show your work.

c) Who is the vote-for-two winner? Show your work.

d) Who is the Hare winner in this same election? Show your work.

	6 Voters	6 Voters	4 Voters	3 Voters	4 Voters	4 Voters			
A	1	4	4	1	1	4			
B	4	1	2	3	2	3			
C	2	2	3	2	4	2			
D	3	3	1	4	3	1			

e) Determine the head-to-head winners in each of the six possible pairings. Give the vote tally for each.

- A vs B
- A vs C
- A vs D
- B vs C
- B vs D
- C vs D

Is there one candidate that wins all head-to-head elections? Loses all of them?

f) Which of the first four voting methods do you think is best?