

Assignment 14

MATH2380 – MATHEMATICS FOR THE ENVIRONMENT – SPRING 2013

Due Monday, March 11

Name: _____

1. Consider the following election results between four candidates: A, B, C, and D..

Number of Voters	12	8	26	17	6	12	14
first preference:	B	B	A	C	A	D	D
second preference:	C	D	C	D	B	B	C
third preference:	D	C	B	B	C	C	B
fourth preference:	A	A	D	A	D	A	A

- (a) Looking at the raw election results, is there a candidate that you think should or shouldn't win? Why?
- (b) Using the plurality method, who wins this election?
- (c) Using the Borda count method, who wins this election? Give first preferences 3 points, 2nd preferences 2 points, 3rd preferences 1 point, and fourth preferences zero points.
- (d) Using the instant runoff method, who wins this election?
- (e) Using the ranked pairs method, who wins the election?
- (f) Is there a Condorcet candidate for this election?