Name _____ **Voting Systems**

1. Here is an example of a voter preference table to which we'll apply our various voting methods. The percentages of the voters is given across the top row (For example, 49% of the voters cast ballots of perference for A first, B second and C third). There are two "major" candidates and one on the "fringe." As you answer each question below, write a sentence or two explaining what you've done.

	49	48	3
1st	A	B	C
2nd	B	A	B
3rd	C	C	A

- Who wins with the *Plurality* Method?

- Who wins with the *Instant Run-off* Method?

- Give the *Round Robin* results below and decide the winner on that basis.

  A vs B

  A vs C

  B vs C

- Let's reconfigure the table for the *Borda* Method. The first table has the number of votes, and the second has the number of points. Complete the table.

Votes:

	A	B	C
1st	49	48	3
2nd	48		
3rd			

Points:

	A	B	C
1st	147	144	9
2nd			
3rd			
Total Points			

Who wins using the *Borda* method?

2. *Secret Gaming.* Consider the same example as on the previous page. In order to depress the impact of the second-place votes for B, some of A's supporters cast votes which do not reflect their true preference; they rank C second and B third. These so-called "insincere" votes are indicated with bold type below:

	45	**4**	48	3
1st	A	**A**	B	C
2nd	B	**C**	A	B
3rd	C	**B**	C	A

Fill out the new *Borda* votes and points tables below:

Votes:

	A	B	C
1st	49	48	3
2nd	48		
3rd			

Points:

	A	B	C
1st	147	144	9
2nd			
3rd			
Total Points			

Who wins using the *Borda* method?

3. *Everybody games it!* Not wanting to be vulnerable to strategic voting by the other major candidate, *all* the supporters of A and B cast insincere second place votes for C.

	49	48	3
1st	A	B	C
2nd	C	C	B
3rd	B	A	A

Fill out the *Borda* tables:

Votes:

	A	B	C
1st	49	48	3
2nd			
3rd			

Points:

	A	B	C
1st	147	144	9
2nd			
3rd			
Total Points			

Who wins using the *Borda* method?