Voting methods:

- **Plurality**: The candidate with the most first place votes wins.

- **Plurality with Elimination**: The candidate with the least first place votes is eliminated. Repeat until only one remains!

- **Rachel's method: Survivor**: The candidate with the most last place votes is eliminated. Repeat until only one remains!

- **Least harm**: The candidate with the least last place votes wins.

- **Michael's method: Borda Count**: Candidates get points for votes. Most points wins. You get the most points for 1st place, one less point for 2nd, one less for 3rd, etc. If there are 3 candidates that means 3 points for first, 2 for second, and 1 for last.

- **Head to head**: Every pair of candidates has a mini-election. Each win is 1 point, each tie is 1/2 point, each loss is 0 points. Most points wins.

Who wins?

5	4	3
A	B	C
B	C	B
C	A	A

Who wins by how much using each method?

- Plurality: _____ wins with _____ votes

- P. w/ Elimination:

- Rachel's survivor:

- Least harm:

- Michael's count:

- Head to head:

Who wins? Three more voters enter the constituency with new preferences.

5	4	3	2	1
A	B	C	A	C
B	C	B	C	A
C	A	A	B	B

Who wins by how much using each method?

- Plurality:

- P. w/ Elimination:

- Rachel's survivor:

- Least harm:

- Michael's count:

- Head to head:

Fairness:

Consider each of our methods of counting votes. Can a majority winner lose? Can a majority loser win? Would it be fair if they did? Is there always a majority winner? Is there always a majority loser?

Head to head in the first election may be convincing: B wins **every** head to head match he is involved in. Call him a **Condorcet winner**. Can there be more than one Condorcet winner? Does there have to be at least one? Similarly, someone who loses every head to head match would be a Condorcet loser. Can there be more than one? Must there always be at least one?

Consider each of our methods of counting votes. Can a Condorcet winner lose? Can a Condorcet loser win? Would it be fair if they did?