Work on these with your partner(s) at the board

10	$A > B > C > D$
9	$B > A > D > C$
8	$C > D > A > B$
4	$D > C > B > A$
2	$D > B > A > C$

Calculate the outcome using:

1. Plurality, or weights $(1, 0, 0, 0)$
2. Vote for two, or weights $(1, 1, 0, 0)$
3. Antiplurality, or weights $(1, 1, 1, 0)$
4. Borda count, or weights $(3, 2, 1, 0)$
5. All pairwise outcomes

Theorem 7 (1989, pg 77, Saari, *Chaotic Elections*)

Suppose there are $N \geq 3$ candidates

- Rank the candidates in any desired transitive manner and select a weighted method.
- For each of the N ways to drop one candidate, pick a transitive ranking for the remaining $N-1$ candidates.
  For each subset of $N-1$ candidates, pick a weighted method.
- For each subset of $N-1$ candidates, there are $N-1$ ways to drop a candidate leaving a subset of $N-2$ candidates.
  Pick an ordering for each of these and a weighted method.
- Continue until you are left with pairs of candidates.
  Use the majority vote for the pairs.

For almost all choices of weighted voting methods (including plurality, vote for two, vote for three, etc.) there exists a profile so that when the ballots are tallied on the subsets using the indicated method, the outcome corresponds to the specified ranking.

The Borda Count is a method that does not allow this type of outcome.