1. Review of **Voting Methods** so far

   (a) **Plurality Voting**

   pros
   - Simple
   - Quick. One tally and done.

   cons
   - Winner may have only small minority of votes.
   - Can fail to give the Condorcet winner. (That is, a candidate who wins every one-to-one race can lose!)

   (b) **Instant Runoff Voting** (IRV) or **Ranked Choice Voting** (RCV)

   mechanics?
   - Look for majority winner. If none, eliminate candidate with fewest votes. Repeat.

   pros
   - Winner is preferred by a majority

   cons
   - Can fail to give the Condorcet winner.
   - Can fail Monotonicity Criterion.
   - Takes longer.

2. **Borda Count**

   (a) **Method:**
   - Assign points to each choice starting with:
     1 point for last choice
     2 points for 2nd-to-last
     ⋮
   - sum up points
   - most points wins

   (b) **Example:**

Points	# votes	3	4	2	1	1
4	1st choice	A	B	C	C	D
3	2nd choice	C	C	D	B	C
2	3rd choice	B	D	B	A	B
1	4th choice	D	A	A	D	A

FYI observe: B is the plurality winner.

Sums

A: $3(4)+4(1)+2(1)+1(2)+1(1) = 12+4+2+2+1 = 21$

B: $3(2)+4(4)+2(2)+1(3)+1(2) = 31$

C: $3(3)+4(3)+2(4)+1(4)+1(3) = 36$ ← Largest sum. C wins using Borda Count.

D: $3(1)+4(2)+2(3)+1(1)+1(4) = 22$

3. **Copeland's Method**

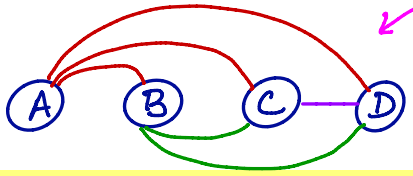
(a) **Method:**

- Do all head-to-head matchups
- Assign one point for each win, ½ point for tie
- Sum points.
- Most wins.

(b) **Example:**

# votes	3	4	2	1	1
1st choice	A	B	C	C	D
2nd choice	C	C	D	B	C
3rd choice	B	D	B	A	B
4th choice	D	A	A	D	A

think through list of matchups



tally A vs B :

A	3
B	4 + 2 + 1 + 1 = 8

Work:

tally one together

matchup	A vs B	A vs C	A vs D	B vs C	B vs D	C vs D
tally	A : 3 B : 8	A : 3 C : 8	A : 4 D : 7	B : 4 C : 7	B : 8 D : 3	C : 10 D : 1
winner	B	C	D	C	B	C

I'll just give you this for simplicity. Check on your own.

tally points

A	0
B	2
C	3
D	1

The most points
C wins under Copeland's Method.

FYI: C is Condorcet Winner in this case, too!