

Worksheet 3
Mathematics of Social Choice
Duchin, Spring 2021



Problem 1. Use the given preference schedule to verify that Plurality, Runoff, Elimination, Coombs, Borda Count, and Sequential Comparison all allow the possibility of *losing spoilers*. **Bonus:** This example does not work to prove the same for Pairwise Comparison, but try to come up with an example that does! (this does exist)

×2	×4	×3
C	B	A
A	C	B
B	A	C

Problem 2. Even a Condorcet candidate can be a losing spoiler! Give an example of a system of election where that would be the case for the preference schedule here.

×4	×3	×4	×2
B	A	C	C
A	B	A	B
C	C	B	A