

Plurality & Instant Run-Off Voting**Math 111 - Workshop**

1. Here is a preference table for an election with four candidates.

Candidate	Number of Voters				
	14	10	8	4	1
Alfred Pennyworth	1st	4th	4th	4th	4th
Bruce Wayne	2nd	2nd	3rd	1st	3rd
Selina Kyle	3rd	1st	2nd	3rd	1st
Dick Grayson	4th	3rd	1st	2nd	2nd

- (a) How many voters are there?
- (b) Who would win the election above using the plurality method?
- (c) Who would win the election above using instant runoff voting?
2. Members of an outdoor adventure club have voted on their next activity. The results are shown in the preference schedule below.

	Percentage of voters			
	40%	25%	20%	15%
Climbing	2nd	2nd	1st	3rd
Kayaking	1st	3rd	3rd	2nd
Paintball	4th	1st	2nd	4th
Sailing	3rd	4th	4th	1st

- (a) Which activity would win using the plurality method?
- (b) Which activity would win using instant run-off voting?
- (c) Is one of the activities a spoiler candidate if instant run-off voting is used?