VOTING

TEXT: 11.1, 11.2

LAST NAME	FIRST NAME	DATE

1 (2 points)**.** Construct a preference schedule out of the given preference ballots.

Candidates	**Ballots with Rankings**															
Vanilla	1	2	2	2	3	2	2	3	1	1	2	3	1	2	3	2
Chocolate	2	3	1	1	1	3	1	2	2	2	1	2	2	1	2	3
Mint	3	1	3	3	2	1	3	1	3	3	3	1	3	3	1	1

2 (2 points)**.** Construct a preference schedule out of the given preference ballots, for candidates Moesha [M], Naomi [N], Abey [A], and Jorge [J].

Rankings	**Ballots with Candidates**																			
1st choice	M	M	A	J	J	M	M	M	M	A	J	M	M	J	M	M	A	J	J	M
2nd choice	A	N	N	A	A	A	N	A	N	N	A	A	N	A	A	N	N	A	A	N
3rd choice	N	A	M	M	M	N	A	N	A	M	M	N	A	M	N	A	M	M	M	A
4th choice	J	J	J	N	N	J	J	J	J	J	N	J	J	N	J	J	J	N	N	J

3 (4 points)**.** Acme University Computer Science department conducts a faculty vote in order to determine the best choice for the language used in Basic Programming. Each faculty member ranks each programming language in order of preference. The results are shown in the preference schedule below.

Language	**Ballots with Rankings**				
C	3	2	2	1	4
Guile	1	3	4	3	2
Java	2	4	1	2	3
Python	4	1	3	4	1
Number of Votes	**8**	**5**	**4**	**6**	**2**

(a) Using the plurality voting, which language is the winner of the department vote, and with how many votes?

(b) Is the plurality winner also a majority winner? Why or why not?

(c) Use the Borda count method to determine the winner. Show all work.

4 (4 points)**.** Use the Pairwise Comparison (a.k.a Copland's method) to determine the winner. Show the result of every head-to-head.

Language	**Ballots with Rankings**				
C	3	2	2	1	4
Guile	1	3	4	3	2
Java	2	4	1	2	3
Python	4	1	3	4	1
Number of Votes	**8**	**5**	**4**	**6**	**2**

5 (4 points)**.** Find the winner using the Plurality With Elimination (a.k.a. Instant Runoff Voting). Show the re-ranked preference schedule after each elimination.

Language	**Ballots with Rankings**				
C	3	2	2	1	4
Guile	1	3	4	3	2
Java	2	4	1	2	3
Python	4	1	3	4	1
Number of Votes	**8**	**5**	**4**	**6**	**2**

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