Key Concepts	Questions	Out Of	Total
Majority	1a, 2a, 3	6	
Plurality	1b, 2b, 6, 7	8	
Majority with Elimination	2c, 4, 6, 7	8	
Borda Count	1c, 2d, 6, 7	8	
Condorcet	2e, 5, 6, 7	8	

Voting – Assignment 1

1) Four candidates (A, B, C, D) ran in an election, and the results are presented in the table below.

	50,000	28,000	12,000	4,000
1st	A	C	D	B
2nd	B	B	C	C
3rd	C	D	A	D
4th	D	A	B	A

Determine the winner using each of the following methods:
   a) Majority
   b) Plurality
   c) Borda Count

2) Students were asked to rank the following fruits from most favorite to least favorite: Apple, Banana, Cherry, Dragon Fruit. The results are presented in the table below.

	22	14	12	16	35	20
1st	Cherry	Banana	Apple	Banana	Cherry	Dragon Fruit
2nd	Apple	Dragon Fruit	Banana	Apple	Dragon Fruit	Banana
3rd	Dragon Fruit	Apple	Dragon Fruit	Dragon Fruit	Apple	Apple
4th	Banana	Cherry	Cherry	Cherry	Banana	Cherry

Determine the winning candidate using each of the following methods:

a) Majority
b) Plurality
c) Majority with Elimination
d) Borda Count
e) Condorcet

3) The results of an election are presented in the table below. Using majority, which option would win?

	4	7	8	5
1st	A	C	B	C
2nd	C	B	A	A
3rd	B	A	C	B

4) Students were asked to rank the following courses from favorite to least favorite: Math, English, Science, History

	8	9	4	2	3	8
1st	Math	History	Science	Math	Science	English
2nd	English	Math	Math	History	History	Math
3rd	Science	English	English	Science	English	History
4th	History	Science	History	English	Math	Science

Which subject would win if the votes were tallied with Majority with Elimination?

5) The results of an election are presented below. Using Condorcet, which option would win?

	325	260	250	215
1st	A	C	B	D
2nd	B	D	C	A
3rd	C	A	D	B
4th	D	B	A	C

6) There were 3 candidates running in an election: A, B, and C. The results of an election are presented in the table below.

	132	70	60	131
1st	B	A	A	C
2nd	A	C	B	A
3rd	C	B	C	B

The election committee has decided that they will analyze the results using Borda Count, Majority with Elimination, Plurality, and Condorcet. If different candidates win using different methods, the winner will be the option that wins the most number of times.

Which candidate wins?

7) Create your own election results between 4 candidates where the winner using Borda is different than the winner using Condorcet.