

Show all work clearly and in order, and circle your final answers. Justify your answers.

PROBLEM ONE Show that in the following election that Plurality with Elimination voting violates the Condorcet criterion. Show how you arrived at your answer.

	7	7	8	5
1	A	C	D	B
2	B	B	C	A
3	C	A	B	C
4	D	D	A	D

PROBLEM Consider a weighted voting system with the following representation

$$[12; 4, 4, 3, 3, 2, 1].$$

How many voters are there? What is the quota? Are any of the voters *irrelevant* (this means that if they are on a winning coalition it must win without them as well)?