

MA 111, Fairness Criteria, September 12, 2012

For the fill in the blanks, answer with “Majority Criterion”, “Condorcet Criterion”, “Monotonicity”, “IIA”, or “None”

Problem 1. An election is held. Candidate A is the majority candidate in the election, but a different candidate wins the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|----------------------------|-------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| Plurality with Elimination | None of the above | |

Problem 2. An election is held. A is the winner of the election. Shortly after the election, it is discovered that candidate A had a criminal record, and therefore was not eligible to be in the election. Candidate A is eliminated from all of the ballots and the ballots are counted again. In the recount, candidate C is declared the winner. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|----------------------------|-------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| Plurality with Elimination | None of the above | |

Problem 3. An election is held. Candidate A is the plurality candidate in the election, but a different candidate wins the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

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|----------------------------|-------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| Plurality with Elimination | None of the above | |

Problem 4. An election is held. Candidate C is the Condorcet candidate in the election, but a different candidate wins the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

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|----------------------------|-------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| Plurality with Elimination | None of the above | |

Problem 5. An election is held. Shortly before the election, a poll is conducted and it is forecasted that candidate A will win the election. A few voters, who originally favored candidate A, decide to change their votes to favor B. When the official votes are cast, A ends up losing the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|----------------------------|-------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| Plurality with Elimination | None of the above | |

Problem 6. An election is held. A is the winner of the election. Shortly after the election, it is determined that candidate B (who lost the election) had accepted illegal campaign contributions, and therefore was not eligible to be in the election. Candidate B is eliminated from all of the ballots and the votes are counted again. In the recount, candidate C is declared the winner. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|-----------|----------------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| | Plurality with Elimination | None of the above |

Problem 7. An election is held. Candidate A is the majority candidate in the election, and A wins the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

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|-----------|----------------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| | Plurality with Elimination | None of the above |

Problem 8. An election is held. Candidate C is the Condorcet candidate in the election and C wins the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|-----------|----------------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| | Plurality with Elimination | None of the above |

Problem 9. An election is held. Shortly before the election, a poll is conducted and it is forecasted that candidate A will win the election. A few voters, who originally favored candidate B, decide to change their votes to favor A. When the official votes are cast, A ends up losing the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|-----------|----------------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| | Plurality with Elimination | None of the above |

Problem 10. An election is held. Shortly before the election, a poll is conducted and it is forecasted that candidate A will win the election. A few voters, who originally favored candidate B, decide to change their votes to favor A. When the official votes are cast, A ends up winning the election. The outcome of this election violates which one of the fairness criteria? _____.

Which of the following voting methods might have been used in the above election? (Circle all that apply)

| | | |
|-----------|----------------------------|----------------------------|
| Plurality | Borda Count | Pairwise Comparison Method |
| | Plurality with Elimination | None of the above |