ECO316: Applied Game Theory

Problem Set #1 Solutions

1. **Voting in 3-Person Election:** Consider the following preference ranking of candidates (A, B, and C) by the three voters:

   - Voter 1: A, B, C
   - Voter 2: B, A, C
   - Voter 3: C, B, A

   If Voters 1 and 2 vote for their most-preferred candidate, then if Voter 3 also votes for her most-preferred candidate, she creates a tie. If instead, she votes for candidate B, she ensure that B wins which could be better than a tie (depending on the magnitude of the utility gaps between C, B, and A). Conversely, if Voter 3 votes honestly, then either Voter 1 or Voter 2 could break a tie by voting for the second-favourite candidate, which again could be preferrable to a tie.

2. **Hotelling's Model with Abstention:**