1. Prove: Let $G$ be a strategic form game. $D_s(G) \subseteq D_w(G) \subseteq N(G)$

2. Prove: Let $G$ be a finite strategic form game and $\sigma^* \in N(G)$. Then, $supp(\sigma^*) \subseteq R(G)$, where $supp(\sigma^*) = \times_{i \in N} supp(\sigma^*_i)$.

3. Prove: Let $G$ be a finite strategic form game. If IEWDS results in a unique outcome, then this outcome must be a Nash equilibrium of $G$.

4. There are $n \geq 2$ players each of whom simultaneously chooses an integer between 1 and 99. A player wins and gets a payoff of 1 if and only if her number is among the closest to $2/3$ of the average of all the numbers chosen. Otherwise she loses and gets a payoff of 0. Formulate this situation as a strategic form game and find the set of outcomes that survive iterated elimination of weakly dominated strategies.