

# Clue Reasoning

## Summary

1. **Cards dealt/seen:** Note who holds each card you see (including your own).
2. **Suggestions:**
  - a. If a player cannot disprove a suggestion, the player has none of the three suggested cards.
  - b. If a player disproves a suggestion, the player has at least one of the three suggestion cards.
  - c. If only one possible card remains from a player's disproof, the player has that card.
  - d. If you know a player holds one card from a player's disproof, the disproof can be forgotten.
3. **Card location:** A card is in exactly one location.
  - a. If you know a card is in one location, it is not in another location. ("If you know where a card is, you know where it is not.")
  - b. If you know a card is not in all but one location, it is in that location. ("If you know where a card is not, you know where it is.")
4. **Case file:** Exactly one card of each category is in the case file.
  - a. If you know a card is in the case file, no other cards in that category are in the case file.
  - b. If you know all cards of a category but one are not in the case file, then that one is in the case file.
5. **Card count:** Note how many cards each player was dealt.
  - a. If you know all cards a player has, the player has no other cards.
  - b. If you know all cards a player does not have, the player has all other cards.
6. **False accusations:**
  - a. If a false accusation is made, at least one of the cards is not in the case file.
  - b. If all but one card of a false accusation is in the case file, that card is not in the case file.
  - c. If you know one case of a false accusation is not in the case file, the false accusation can be forgotten.