Texas Hold’em Probabilities

**Approximation to players from probabilities calculated for players**

For a given round with 10 players and resulting ranking of (i.e. player is beaten by opponents), the corresponding win probability if there were only players can be approximated by

1. If , then there’s no way to pick opponents without one beating the player.
2. If 1. Is not the case, then winning probability is divided by .

**Number of possible combinations of dealing cards to players from a deck of cards:**

**Probability of one unique card being dealt when dealing cards to players from a deck of cards:**

**Probability of one of unique cards being dealt when dealing cards to players from a deck of cards:**

**Probability of one unique pair of cards being dealt when dealing cards to players from a deck of cards:**

**Probability of unique (and mutually disjoint) pair of cards being dealt when dealing cards to players from a deck of cards:**