

Solitaire Simulation Improvements

With the original simulation, about 63% of games were won over a sample of 1 million games.

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OVERALL
AVERAGE WINS: 3157
AVERAGE (Mean) PROBABILITY: 0.6315 (63.15%)
AVERAGE (Mean) EXECUTION TIME PER SIMULATION: 0.000670744 seconds
STANDARD DEVIATION PROBABILITY: 0.0323949
STANDARD DEVIATION EXECUTION TIME PER SIMULATION: 2.29348e-05
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Improvement 1: The first strategy used to improve winning percentage was to allow the simulation to replay the games that were lost, but with reverse strategy. In the original, simulation looked for cards to move starting at the leftmost column, when replaying the game, it now starts at the rightmost column. Approximately 13% of games that were losses in the original playthrough became wins when using the reverse strategy. Overall, about 68% of games were won over a sample of 1 million games. To be exact, the winning percentage increased by 4.7104%.

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OVERALL
AVERAGE WINS: 3393 out of 5000
AVERAGE (Mean) PROBABILITY: 0.678604 (67.8604%)
AVERAGE (Mean) NUMBER OF MOVES: 59.8904
AVERAGE (Mean) EXECUTION TIME PER SIMULATION: 0.00121056 seconds
AVERAGE (Mean) NUMBER OF WINS ADDED: 238.365 Wins
PERCENTAGE OF LOSSES CHANGED TO WINS: 0.129171
NUMBER OF SIMULATIONS WITH PROBABILITY OVER 75: 0
NUMBER OF SIMULATIONS WITH PROBABILITY UNDER 60: 0
STANDARD DEVIATION PROBABILITY: 0.0241008
STANDARD DEVIATION EXECUTION TIME PER SIMULATION: 5.32164e-05
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