Assignment 3 Writeup

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October 2022

1 Questions

- **On average, how long does a game of dreidel with 6 players and 4 coins last? What is the longest game, and what is the shortest game?** - Using my program a game of dreidel with 6 players and 4 coins lasted 346 rounds with the random seed 613 the program printed out "Chanah 6 4 346 613" as a result of the parameters given. My game also produced "Batsheva 2 1 2 3" as my shortest game and my longest game was "Channah 8 20 23846 999".

- **On average, how long does a game of dreidel with 6 players and 4 coins last? What is the longest game, and what is the shortest game?** - I found that having more players per round resulted in many more rounds than the latter, experimenting with the coin value of 3 and different player counts supported this argument. Ranging from 2-8 players I got "31, 19, 95, 329, 68, 398, 630" While the results would sometimes fluctuate they ultimately produced the same end result as I expected them to. Excluding the outliers, it ultimately followed what I hypothesized. However, that means that there isnt a definitive yes or no answer because of how the results fluctuate with each seed..

- **Is there an advantage or disadvantage to a position in a round? In other words are players in a particular position more likely to win or lose a game?** - I do not think there are any advantages or disadvantages in each round when it comes to the position since it is all up to chance. The game relies on randomness that each player equally shares the effects of a dreidel spin. They are not in any particular position that makes it more likely to win the game or lose it.

2 Main Program

- **Dreidel the game -** For this assignment, I was tasked with creating a program which runs a simulation of the dreidel.c game. After learning about the history of the game and its set of rules I developed a program

that would emulate it as best as I could with the given directions. This was done through the use of a random function that I utilized throughout the code. However, for some reason, my code produced a different value for the number of rounds it took to finish the game. While technically my code works it did not fully match the results given to us despite having the same parameters. I was able to change this after realizing that it was incorrect by adjusting my main game functions win standards.