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CS 3460 Lab 1 Report

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Let’s Make a Deal

In the lab “Let’s Make a Deal,” we tested different player strategies and observed the number of times each player won with their given strategy. Jane’s strategy was to pick her lucky number, 1, and not switching her initial choice. Betty’s strategy was to pick her unlucky number, 1, and switch to the next available door that wasn’t chosen by Monty. Frank’s strategy was to pick a random door and not switch. And Fred’s strategy was to pick a random door, then switch to a door that wasn’t already chosen by Monty.

The average number of wins collected from the lab were: Jane with 334 wins, Betty with 680 wins, Frank with 322 wins, and Fred with 663 wins. The program was run 1000 times to collect a good sample size of each strategy. The strategies that had the best chance of winning were Betty’s and Fred’s. Each one of those had a 2/3 chance of choosing the winning door because they chose to switch everytime.