Three Doors

The simulation illustrates the solution to the Monty Hall problem, in which a competitor is shown three doors, two of which are empty and one of which conceals a prize. In class, the prize was to win a brand-new car and the other two doors had goats, so let’s stay with that aspect as it concerns this game mode. The contestant is presented with the chance to either stick with their first selection or move to the other door after the judge, for instance, unveils one of the vacant doors. To compare the outcomes of the two stats, not switching doors and switching the simulation is run 10,000 times. The findings showed that the win percentages varied significantly: the win rate was roughly 33% when the contestant did not swap. On the other hand, the win percentage rose to 67% when the competitor consistently swapped doors. This demonstrates a definite 34% benefit for switching doors. The results verify the mathematical idea that a competitor who switches doors has a better chance of winning; the odds increase from 1/3 when staying to 2/3 when switching. When you first taught us this lesson, I did believe that switching doors would be the better method or option, but I couldn’t put my finger on why that would be until you explained it in mathematical terms. Knowing this when I was younger would’ve been great when I used to watch deal or no deal.