**Monte Carlo Simulation**

**Time: 10 minutes**

**INTRODUCTION**

After a strange turn of events, you find your self as a contestant in the popular game show “Let’s Make a Deal”. You make your way to the final challenge, which promises a brand-new car as the prize.

Challenge is the following:

- There are 3 doors, behind which are two goats and a car.
- You pick a door (call it door A). You’re hoping for the car of course.
- Monty Hall, the game show host, examines the other doors (B & C), opens one and always reveals a goat. (If both doors have goats, he randomly picks one to open.)
- After the revelation, you have the option to change your pick (you can switch to other still closed door)

Before attending the show, you quickly identified this as a statistical problem but given the complexity, you decide to use a Monte Carlo simulation to estimate the odds.

When preparing your analysis, you should assume the following:

• 10000 outcomes are required to prepare your Monte Carlo.

You can either follow a crude random number generation approach or use the simpler Data Table method to run your Monte Carlo. Using Data table is a plus.

**QUESTION**

What is the probability of winning the car for both strategies (switching vs. not switching)?