Joseph Mulray
CS 171 Matthew Burlick
1 March 2016

Homework #4

Output:

Staying: 32.74%
Switching: 67.26%

Staying: 33.35%
Switching: 66.65%

Staying: 32.81%
Switching: 67.19%

Staying: 33.27%
Switching: 66.73%

Staying: 32.78%
Switching: 67.22%

Staying: 34.32%
Switching: 65.68%

Number of Trials	# Switching Wins	# Staying Wins	%Staying	% Switching
10000	3274	6726	32.74	67.26
10000	3335	6665	33.35	66.65
10000	3281	6719	32.81	67.19
10000	3327	6673	33.27	66.73
10000	3432	6568	34.32	65.68

Conclusion:

Conclusion of the Monty Hall problem is that you should always switch because you have a 2/3 chance of getting the car versus a 1/3 . As shown in the results of the output, it produced on average double the chance of winning when switching. This is because your initial chances of picking the door with the car are one third and these odds do not change if you stay with your results. When you switch doors your odds

of now getting a goat are 1/3 leaving you a 2/3 chance of winning if you switch your answer to the other door.