

Name: ID:

CMPSCI 240
Reasoning Under Uncertainty
Discussion 1

The Monty Hall Problem: This is a much-discussed puzzle, based on an old American game show. You are told that a prize is equally likely to be found behind any one of three closed doors in front of you. You point to one of the doors. A friend opens one of the remaining two doors for you, after making sure that the prize is not behind it. At this point, you can stick to your initial choice, or switch to the other unopened door. You win the prize if it lies behind your final choice of door. Consider the following strategies: (1) Stick to your initial choice. (2) Switch to the other unopened door. (3) You first point to door 1. If door 2 is opened, you do not switch. If door 3 is opened, you switch. Which strategy should you choose?

Sequential Description:

Solution: