

**MATH 113: DISCRETE STRUCTURES**  
**HOMEWORK DUE FRIDAY WEEK 11**

*Problem 1.* Reconsider the Monty Hall problem where the gameshow has a bias for where it places the car so that  $P(A) = 0.4$ ,  $P(B) = 0.35$ , and  $P(C) = 0.25$ . In advance of your turn on the show, suppose that you study taped shows and have determined these propensities. What door should you pick to begin with? What are your chances of eventually winning the car if you make that pick?