Stat 155 Fall 2009: Homework 4

Due October 4, 2009

• Please show all your steps. No credit will be given for just giving the answer, without any supporting work.
• Grading: 3 points for a complete solution, 2 points for an almost correct solution, 1 point for some correct work, 0 otherwise

1. Problem 2, Section 1.5 on page II-7 in Ferguson’s text.

2. Consider the game of Rock-Paper-Scissors: Two players face each other, and simultaneously display their hands in one of the following three shapes: A fist denoting a rock, the middle and forefinger extended and spread to denote scissors, or their palm out, denoting paper. The rock wins over scissors, the scissors over the paper, and the paper over the rock. The winner collects a dollar from the loser, and in case of a tie, no money is exchanged. Summarize the outcomes using a payoff matrix. What would be an optimal strategy for Player I?

3. Problem 4, Section 1.5 on page II-7 in Ferguson’s text.