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.