Stat 104 – Homework 5
Due Thursday October 15, 2009

Reading: October 6 – October 8 Chapter 5
October 13 – October 22 Chapter 6

Assignment:

1. Complete the following problems from the text: 5.6, 5.7, 5.8, 5.15, 5.23, 5.29, 5.30, 5.33, 5.40, and 5.61.

2. Problem 2 on Laboratory 3 looked at eye color and sex for students who took an introductory statistics course. Below is a summary table of the data.

	Blue	Brown	Green	Hazel	Total
Female	313	290	175	156	934
Male	310	240	85	135	770
Total	623	530	260	291	1704

If one student is chosen at random from the 1,704, what is the probability, report as a fraction and then round to 2 decimal places, that:

a) the student has blue eyes?
b) the student is a female?
c) the student has brown or blue eyes?
d) the student is a male and has green eyes?
e) the student is female or has hazel eyes?
f) the student is a male given we know the person chosen has blue eyes?
g) the student has blue eyes given we know the person chosen is a male?
h) Are the events blue eyes and green eyes mutually exclusive? Explain briefly.
i) Are the events hazel eyes and male mutually exclusive? Explain briefly.
j) Are the events green eyes and male independent? Explain briefly.
k) Are the events brown eyes and female independent? Explain briefly.