

# STATISTICS

Due September 27, 2011

## Homework 1

1. The final grades of students in a statistics class are listed in the file “HW1DATA.txt”. There are 20 male and 20 female students in the class.
  - (i) Calculate the mean, range, and standard deviation of the final grade in the statistics class. **[Note: You should use the data set associated with your own class ID.]**
  - (ii) Plot the frequency histogram of the final grade. The histogram should be plotted in interval of 5 grade points.
  - (iii) Plot the box plot of the final grade.
2. The first 20 values in the data set of Problem 1 represent final grades of male students in the class. Calculate the mean and standard deviation of the final grades of male and female students, respectively. Compare and make your comments on the class performance (in terms of the final grade) with respect to gender.
3. In a batting game, a player can either hit or miss the ball with equal probability. In each play, a player can have four battings. Let’s consider the 4-batting play as a random experiment.
  - (i) What is the sample space of the experiment?
  - (ii) What is the event of having more than 2 hits in four battings?