V55.0105: Elementary Statistics. Quiz 2 – 20 minutes
15 February 2006

- Show you work, not only final answers

- Use of notes or book not allowed. You can use a calculator.

Name:

1. [15 points] A town has two high schools, school A with 450 students and school B with 600 students. The mean distance students have to travel to get from home to school is 6 miles for the students from school A and 4 miles for those from school B. What is the mean distance to travel from home to school for all high school students in this town?

2. [10 points] The lengths of all women in country X follow a normal distribution (“bell-shaped curve”) with a mean of 160 centimeters and a standard deviation of 7 centimeters. What percentage of the women in this country will be taller than 167 centimeters?
3. Consider the following data sample: \( x = \{9, 10, 10, 5, 8, 8, 4, 5, 11, 7\} \)

   (a) [10 points] What is the mean of this dataset?

   (b) [10 points] Find the median.

   (c) [15 points] Calculate the variance and the standard deviation.

   (d) [10 points] Calculate the skewness coefficient SK.