

# Test I Do Over

MAT 203, Elementary Statistics, Term IV  
Coker College

Dowman P Varn, Instructor  
Test Date: 24 March 2009

This is a take home test on the subject matter covered on the first test for those who were not satisfied with their score on the first test. **This test is completely optional.** If your score on this test is higher than your score on the in-class version, I will average the two scores and enter that as your score for Test I. If you don't take this do over, then your score on the first test will stand as is.

Please complete the following problems. You may use a calculator, paper and pencil, your text and your class notes. You must work alone. Please write legibly. **You must show your work in order to receive full credit.** Please write out any formulae that you use so that I can understand how you did the problem. You may, of course, check your answers using the statistical functions on your calculator. Please turn this test in at the beginning of class on 31 March. Good Luck!

A policeman measures the speed of 30 randomly chosen cars along a stretch of highway. His results are shown in Table 1. All speeds are given in MPH.

1. Calculate the relative frequency of finding cars going 57 MPH.
2. Draw a histogram of this distribution.
3. What is the mode of this distribution?
4. What is the mean of this distribution?
5. What is the median of this distribution?
6. What is the standard deviation of this distribution?
7. Calculate the range of this distribution.
8. Find  $Q_1$ ,  $Q_2$  and  $Q_3$  for this distribution.
9. Calculate the interquartile range for this distribution.
10. Find the z-score that corresponds to 56 MPH. Interpret your result.

Speed on MPH	Number of Cars
55	2
56	4
57	6
58	7
59	6
60	1
61	2
62	2

Table 1: The first column shows the speed of the cars in MPH, and the second column gives the number of cars going that speed.