

Name: _____
SID: _____
Section: _____

Midterm Exam #1-Math 032-F '07
Instructor: Devin Greene

The exam is 50 minutes long. No notes are permitted, but calculators are.
Show your work.

Problem #1 (10 points)

A data set consists of 2 unknown values x and y as well as 0, for a total of three data values. Find the values x and y given that the sample mean is 0 and the sample variance is 4.

Problem #2 (10 points)

Compute the quartiles for the data set whose frequency table is given below.

Value	Frequency
0	3
1	2
2	2
3	2
4	3

Problem #3 (10 points)

Construct a data set whose median is 5 and whose mean is 3.

Problem #4 (10 points)

A high school teacher gives an exam that is far too easy for most of her students. Would you expect the mean of the test scores to be greater, larger, or about the same as the median of the test scores? Why?

Problem #5 (10 points)

At least what percentage of values in a data set must lie within 3 standard deviations of the mean?

Problem #6

Find an example of a data set with mean 3 and mode 1.

Problem #7

Construct a frequency histogram for the data set consisting of the number of letters in each word in this sentence.