

## Getting Ready for the Midterm – Chapter 3

### Topics

You are responsible for the following:

- Calculate the mean, median, or mode by hand or StatCrunch.
- Calculate range, standard deviation, or variance by hand or StatCrunch.
- Calculate quartiles and the interquartile range by hand or StatCrunch.
- Determine if a value is an outlier.  
You should be prepared to do this if the data are presented in a stem-and-leaf display.
- Create a boxplot by hand or StatCrunch.  
You should also be prepared to identify the shape of a distribution from a boxplot.

### Practice Problems

1) Calculate mean, median, Q1, Q3, and mode for this set of data.

Daily volumes of the New York Stock Exchange for August 1999 (millions of shares)

649	739	789	859	699	684	836	793
745	692	583	691	683	684	661	682
732	864	719	569	605	860		

2) Here are the scores of 8 randomly selected students on a math exam. Find the standard deviation, variance, and range for these scores.

62	75	72	95	82	86	80	71
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3) Here are the ages of the 16 full-time faculty members in the Math Department at a community college. Create a boxplot for the data. Are there any outliers?

27	42	40	59	32	28	29	30
32	45	27	44	37	52	54	26

4) Use the stem-and-leaf display to find the 5-number summary (Min, Q1, Median, Q3, Max) for this data, and draw a boxplot. Be sure to denote outliers on your graph.

(There are 55 values.)

Stem	Leaf
3	2345556789
4	0001112334455567789
5	001111456679
6	00113456
7	1457
8	1
9	8