

Getting Ready for the Midterm – Chapter 3

Practice Problems – Answer Key

Central Tendency Calculations

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

Mean	Median	Q1	Q3	Mode
719	695.5	682	789	684

Dispersion Calculations

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

Std. dev.	Variance	Range
10.162079	103.26786	33

Fences, Outliers, and Boxplots

3) Here are the ages of the 16 full-time faculty members in the Math Department at a community college. Compute the lower fence and upper fence. Are there any outliers? Create a boxplot for the data.

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

Min: 26 **Q1: 28.5** **Median: 34.5** **Q3: 44.5** **Max: 59** **IQR: 16**

Lower Fence: $28.5 - 1.5(16) = 4.5$

Upper Fence: $44.5 + 1.5(16) = 68.5$

No Outliers

