Name _____Date_____Bell_____

CALCULATING STANDARD DEVIATION

The standard deviation is used to tell how far on average any data point is from the mean. The smaller the standard deviation, the closer the scores are on average to the mean. When the standard deviation is large, the scores are more widely spread out on average from the mean.

* The standard deviation is calculated to find the average distance from the mean.

Calculate the mean, median, mode, range and standard deviation for the following sets of data, rounded to the nearest hundredth. Describe how these values inter-relate.

1. The data set below gives the test scores for a unit test.

22, 99, 102, 33, 57, 75, 100, 81, 62, 29

Mean 66 Median 68.5 Mode N/A

Range 80 Standard Deviation 28.88

Description:

The test grades are on average 28.88 pts away from the test average 66.

2. The data set below gives the prices (in dollars) of cordless phones at an electronics store.

35, 50, 60, 60, 75, 65, 80

Mean_____ Median_____Mode_____

Range_____Standard Deviation_____

Description:

3. The data set below gives the numbers of home runs for the 10 batters who hit the most home runs during the 2005 Major League Baseball regular season.

51, 48, 47, 46, 45, 43, 41, 40, 40, 39

Mean_____ Median_____Mode_____

Range_____Standard Deviation_____

Description:

4. The data set below gives the waiting times (in minutes) of several people at a department of motor vehicles service center.

11, 7, 14, 2, 8, 13, 3, 6, 10, 3, 8, 4, 8, 4, 7

Mean_____ Median_____Mode_____

Range_____Standard Deviation_____

Description:

5. The data set below gives the calories in a 1-ounce serving of several breakfast cereals.

135, 115, 120, 110, 110, 100, 105, 110, 125

Mean_____ Median_____Mode_____

Range_____Standard Deviation_____

Description: