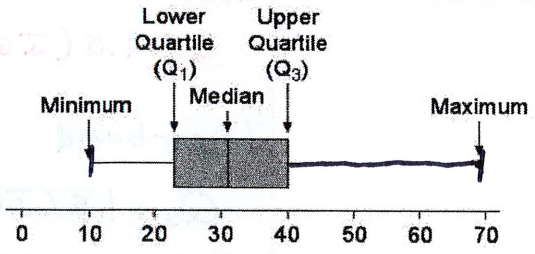
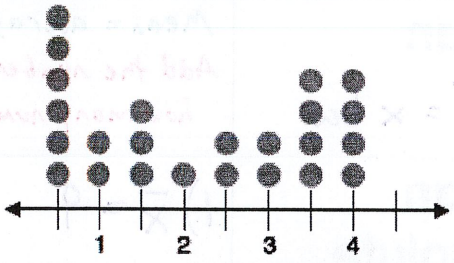
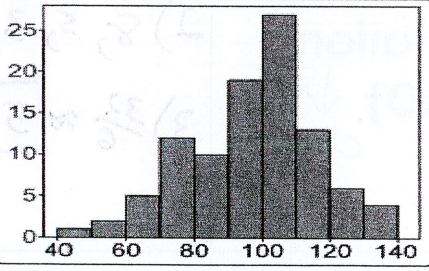
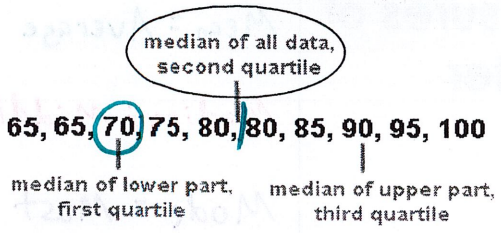
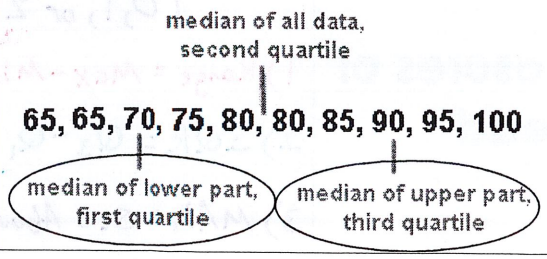
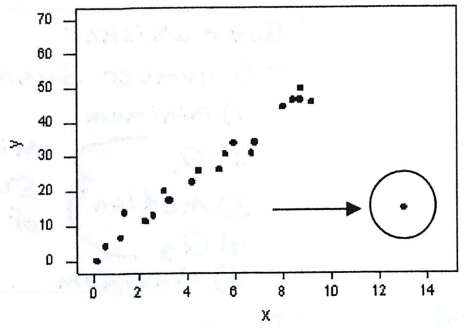
Name: _____ Date: _____

Statistics Terms

Term	Describe	Example
Box Plot	Box + Whisker - 5 number Summary 1) minimum 2) Q_1 3) median 4) Q_3 5) maximum middle 50% of the data	
Dot Plot	Frequency graph that shows each individual data point	
Histogram	Frequency graph that shows the data in bars. Bar domains must be the same size!	
Median	Median = Middle They must be in order from least to greatest!	
First and Third Quartiles	Q_1 or Lower Quartile Median of the Lower Half of the Data Q_3 or Upper Quartile Median of the Upper Half of the Data	

Median, Median, Median

Interquartile Range	$Q_3 - Q_1 = IQR$ We use this to avoid outliers.	**Subtract** **Third Quartile (Q_3) – First Quartile (Q_1) = IQR**
Outlier	Lowerbound $Q_1 - 1.5(IQR)$ Upperbound $Q_3 + 1.5(IQR)$	
Mean $\overline{X}$ = x bar	Mean = average Add the numbers, divide by how many numbers there are	**5 + 4 + 2 + 6 + 3 = 20** $\frac{20}{5} = 4$ **The Mean is 4.**
Mean Absolute Deviation (MAD) ↓ Change	1) $\overline{X} = 9$ 2) 8, 5, 3, 1, 7, 8 3) $\frac{32}{6} \approx$ 5.33	Steps: 1, 4, 6, 10, 16, 17 1) Find the Mean 2) Calculate the absolute value of the difference between each data value and the mean (Make it positive) 3) Determine the average of the differences in step 2. This average is the mean absolute deviation
Measures of Center	Mean = Average Median = Middle Mode = Most (0, 1, or 2)	Find the Mean and Median for the following data. ***Hint:*** (Must order the numbers first before finding the Median) 2 1 5 4 3 **Mean**: $\frac{15}{5} = 3$ **Median** = 3
Measures of spread	1) Range = Max – Min 2) IQR = $Q_3 - Q_1$ 3) MAD = See Above	***Examples of Measures of Spread:*** 1) Range 2) Interquartile Range (IQR) 3) Mean Absolute Deviation - MAD