Grade 6 numerical data and graphs name:_____

1. For our cell phone length data,

a. Find the mean

b. Find the mean absolute deviation

c. Find the median and quartiles

Lower Quartile

Median

Upper Quartile

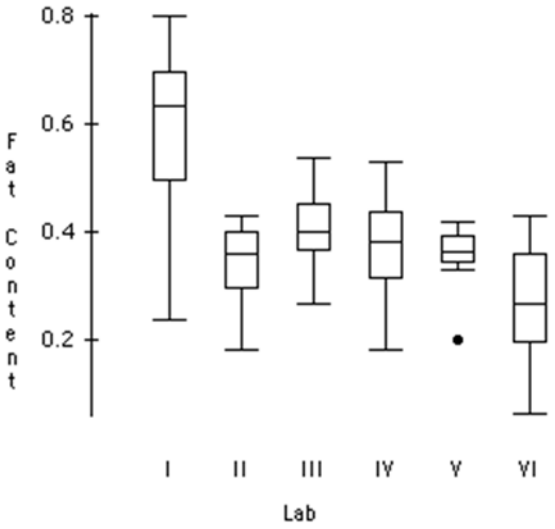
d. the same page (graph paper would be a good choice), on the same number line or on number lines that are lined up one above the other, make:

- A dot plot
- A histogram
- A box plot
- Draw a blue vertical line showing the mean
- Draw red vertical lines showing the range indicated by the mean absolute deviation.

5	
5.25	
5.5	
5.5	
5.5	
5.5	
5.5	
5.5	
5.5	
5.5	
5.5	
5.5	
5.5	
5.75	
5.75	
5.75	
6	
6	
6	
6	
6	
6.25	
6.25	
6.5	
6.5	

2. **The data**: A single can of dried eggs was stirred well. Samples were drawn and a pair of samples (claimed to be of two "types"), was sent to each of six commercial laboratories to be analyzed for fat content. Each laboratory assigned two technicians, who each analyzed both "types". Since the data were all drawn from a single well-mixed can, the null hypothesis (default assumption) is that the mean fat content of each sample is equal. The experiment is thus really a study of the laboratories.

To the right is a set of box plots for the data obtained from each lab. What can we deduce from this data as displayed by the box plots?



3. Make a paired set of box plots (on the same number line) for the data below, and write a comparison of the data given the box plots.

Weights of adult cats:

male	female
7.4	8.6
8.4	5.6
8.6	6.3
9.5	6.6
10.2	6.6
10.4	6.8
11	7
11.7	7.2
12	8
	8
	8
	8.4
	12
	12
	15