Math 153 - Quiz 3

February 1, 2018

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (4 points) In the stem-and-leaf plot shown below, 4|6 stands for 4.6. Use the stem-and-leaf plot to answer the following questions.

1	8	8					
2	0	0	2	5	6	6	
3	5	9	9				
4	1	6					
5	3	4	5				
6	0	0	1	2	2	2	6
7	7	8					

(a) How many numbers are in the sample?

25

(b) Find the mean, median, and mode.

$\bar{x} = \frac{112.5}{25} = 4.5$

MED = 4.6

MODE = 6.2

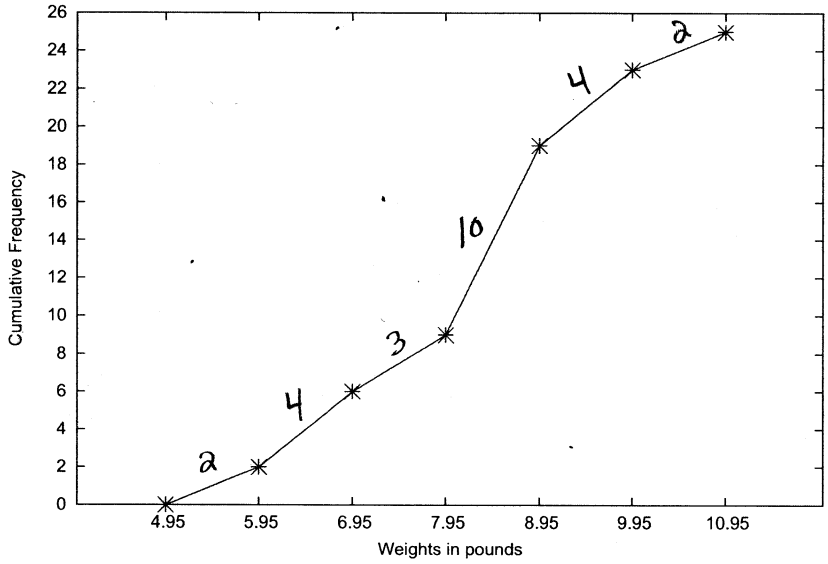
(c) Do the values appear to be normally distributed. Explain.

NO, THE DISTRIBUTION IS FAIRLY SYMMETRIC, BUT THERE ARE TWO DISTINCT PEAKS.

2. (2 points) On a recent test, the 23 girls in class had a mean score of 73.5. The 18 boys had a mean score of 67. What is the mean score of the entire class?

$\frac{23(73.5) + 18(67)}{23 + 18} \approx 70.65$

3. (4 points) The graph shown below is an ogive. The marks along the horizontal axis represent class boundaries. Construct the corresponding frequency distribution (below) and relative frequency histogram (on graph paper).



Weights (lbs)	Frequency
5.0 - 5.9	2
6.0 - 6.9	4
7.0 - 7.9	3
8.0 - 8.9	10
9.0 - 9.9	4
10.0 - 10.9	2