Honors Statistics Chapter 2 Review

The data set is the number of minutes a sample of 25 people exercise each week.

108 139 120 123 120 132 123 131 131 157 150 124 111 101 135
119 116 117 127 128 139 119 118 114 127

1. Make a frequency distribution using 5 classes.
2. Make a relative frequency histogram using 5 classes.
3. Make a cumulative frequency and ogive using 5 classes.
4. Make a boxplot from the data and state the 5 number summary.
5. Calculate the IQR. Are any values outliers? Explain
6. Make a stem plot.
7. Using the stem plot, is the data best described as symmetric, skewed left, or skewed right?
8. The value 139 is at what percentile?
9. Find the value at the 15^{th} percentile.

The data represents length of time on hold, in minutes, to a customer service center.

Date for #10 - #13: 1 5 2 6 7

10. Find the mean. Show work!
11. Find the median. Show work!
12. Find the midrange. Show work!
13. Find the standard deviation. Show work!

14. Jill is in a statistics class at FAU. The professor gives five tests and a final exam. The first five tests are weighted 10% each and the final exam is weighted 50%. Jill's test scores were: 72, 88, 91, 66, and 80. Her final exam grade was an 81. Calculate the weighted mean.

15. Calculate the mean and standard deviation of the frequency distribution

Ages	Frequency
20 – 29	11
30 – 39	3
40 – 49	8
50 – 59	2

The mean weight of adult female deer is normally distributed with a mean of 63 kg and a standard deviation of 7.1 kg.

16. Sketch and label this bell-shaped distribution using the Empirical Rule.
17. 95% of the data lies between what two values?
18. 68% of the data lies between what two values?
19. What is the percentage of female deer that have a weight between 48.8 and 84.3?
20. The weight of two randomly selected female deer is 74 kg and 42 kg. Find the z-scores that correspond to the weights. Is either of these weights considered unusual? Explain.