ANLY-511 HW 7

(2 points) Consider the `Chlorine` data column in the `Bangladesh` data frame.
a) Explore the distribution graphically (boxplot, histogram) and describe it briefly.
b) Use the bootstrap to make a 90% confidence interval for the mean.

1. (2 points) Consider the `Titanic` data. Are the median ages of the victims and survivors different? Examine this with a bootstrap approach. Explain your approach and state your conclusion.

2. (2 points) Problem 5.10 #12 in Chihara/Hesterberg.

3. (2 points) Problem 5.10 #13 in Chihara/Hesterberg.

4. (2 points) Problem 5.10 #15 in Chihara/Hesterberg.

5. (5 points) Problem 5.10 #14 in Chihara/Hesterberg.

6. (5 points) Problem 5.10 #16 in Chihara/Hesterberg.

7. (5 points) Consider the `Arsenic` data column in the `Bangladesh` data frame.
- a) Find the median and the 90th percentile of the sample.
- b) Estimate the bias of the median, using the bootstrap.
- c) Estimate the bias of the 90th percentile, using the bootstrap.