Homework 3, MAT 327/782, Fall 2018

1. Use 2-3 words to describe the most likely type of data and level of measurement. Be as precise as possible.

   (a) Shoe sizes (8, 8.5, 9, 9.5, 13, 13.5, 14) of men from a soccer team.

   (b) Favorite movie of each student in a large sample of university students.

   (c) Circumference in ft. of grain silos in Iowa.

   (d) Number of traffic tickets issued each day in June 2018 in Seattle.

   (e) Year of birth of a random sample of American actors and actresses.

2. The R dataset `faithful` contains data about the Old Faithful geyser in Yellowstone National Park. The first column is the length of the eruption in minutes and the second column is the waiting time until the next eruption in minutes.

   (a) In R, create a strip chart of the eruption lengths, using the best method (default, jitter, or stack) for this data. Note you are deciding which method gives a graph best representing this data. Label the x-axis and title your graph. Submit your graph as a pdf or image file on Blackboard.

   (b) What features do you see in your graph from part (a)?

   (c) In R, create a histogram of the frequencies of the waiting times. Label the x-axis and title your graph. Submit your graph as a pdf or image file on Blackboard.

   (d) In R, create a histogram of the relative frequencies of the waiting times. Label the x-axis and title your graph. Submit your graph as a pdf or image file on Blackboard.

   (e) What features do you see in your graphs from part (c) and (d)?