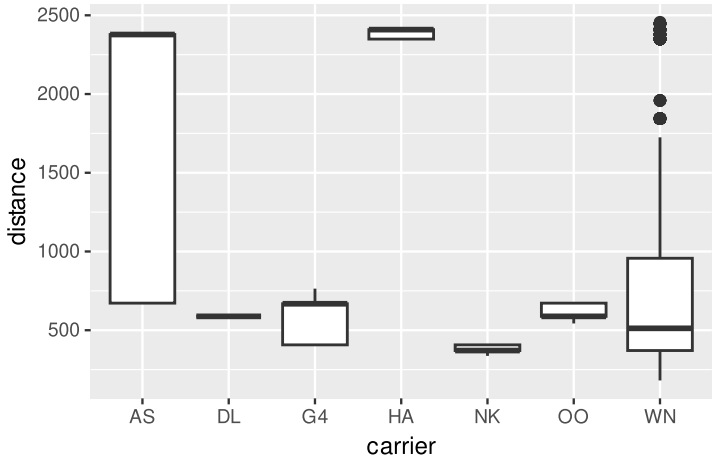
Below is a smaller version of the data from a future lab called `flights_mini`. It contains all flights out of Oakland (OAK) from December 2020. This data frame is used to create the plot that follows. `distance` refers to the distance a given plane travels on its flight, measured in miles. `carrier` refers to the carrier code for a specific airline.



1. Which of the following interpretations of the plot above are true? (select all that apply)

(A) The carrier with the most heavily skewed distance distribution is HA.
(B) The median distance of the flights operated by DL, G4, and OO are roughly equivalent.
(C) The minimum distance traveled in this data set is roughly 200.
(D) The carrier with the greatest variability in distance, as measured by the IQR, is AS.

Consider the small data set from the notes.

6 7 7 7 8 8 9 9 10 11 11

2. The data set above was measured in meters, but what would have happened if it had been measured in decimeters (10 decimeters to a meter)? Provide reasoning for would happen to the measures of center - mean, median, mode - if it had instead been measured in decimeters. Repeat the exercise for three measures of spread: range, standard deviation, and IQR. Which measures remain the same after a multiplicative change in units?

3. Sketch your best sense of the distribution of the following variable(s). For each, please:

   i. Use a form of statistical graphic that emphasizes the important elements of the distribution.
   ii. Label the axes and provide plausible values for the tick marks.
   iii. Describe in words the shape of the distribution.
   iv. State which measure of center and spread would be most appropriate and approximate their values.

   Make a note of any assumptions you're making in interpreting these variable names.

   Number of body piercings among Stat 20 students

   Scores on an easy quiz among Stat 20 students