Exercise 2: Data exploration and summarizing data (plotting if time permits)

1. Load the “Iris data” using the following code  
   data(“iris”)
2. Convert the wide iris data to long and assign it to a new data frame named “iris\_long”
   1. Columns to convert to long include: Sepal.Length, Sepal.Width, Petal.Length, and Petal.Width
   2. Name the new names column “measurement”
   3. Name the new value column “length”
3. Return a list of unique species names in the “iris\_long” data frame
4. Using the “iris\_long” data frame, filter only Sepal Lengths that are greater than 5.0 and assign the results to a new data frame named “filtered\_iris’
5. Using the "iris\_long" data frame, select only the setosa species, group the data by measurement, calculate the mean length for each measurement, and sort by the mean length.
6. Create a scatterplot of setosa Sepal. Length (x-axis) and Sepal.Width (y-axis). Note you will have to filter the original iris data set.
7. Adjust the scatterplot created in 6 to the following: use the shape number 9, increase the size to 3, change the color to anything you would like, change the x-axis label to "Sepal length (cm)" and the x-aix label to "Sepal width (cm).