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

Packages used in this exercise:  
library(tidyr)  
library(ggplot2)

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 for each measurement.
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).