Hands on 3

## Plots

1. Create a data frame consisting of Presure and temperature columns

Presure column have the following values - 50 to 500 in steps of 50
Temperature column has the foll. values - 10 to 50 in steps of 5
i.plot a very basic graph
ii. Add a title = " P-T graph" and label the x and y axis with
iii. "Pressure" and "Temperature"

2. (Barplots) The temperature in New York was measured daily for five month (May to September). The average temperatures in degrees Fahrenheit were 65.5, 79.1, 83.9, 84.0, and 76.9, respectively. Try the commands

```
temp <- c(65.5, 79.1, 83.9, 84.0, 76.9)
barplot(temp, names=5:9)
```

3. Load cherry.csv and run a basic plot on the entire file. In addition run the following plots.

Girth vs volume
Create a scatter plot for height.
Create a histogram for Volume.
Create a boxplot for Volume. Are there any outliers.

4. Use catsdata.csv. Run a basic plot for the entire data.

   a. Plot BWT vs HWT and colour code it with the value in column Sex.

5. (Modification of histograms) Try the following commands and explain what happens:

```
attach(cats)
hist(Hwt[Sex=="M"])
hist(Hwt[Sex=="M"], prob=T)
hist(Hwt[Sex=="M"], breaks=c(5,10,15,20,25))                    ## Not nice
```

Use the xlab and main arguments to change the x-label and the title to something more appropriate.

6. (Parallell boxplots) Try the following commands and explain what happens:

```
boxplot(Hwt[Sex=="F"])
boxplot(Hwt[Sex=="M"])
boxplot(Hwt ~ Sex)
```

GGPlot

1. Use the mtcars data and plot the following using ggplot
basic plot of the wt column , add a main title "Car weight" and label the y axis "weight"
use the same data and plot disp vs wt
add x- label "displacement" and y-label "weight"

2. Use airports.csv to plot the location of the airports on a USA map.