

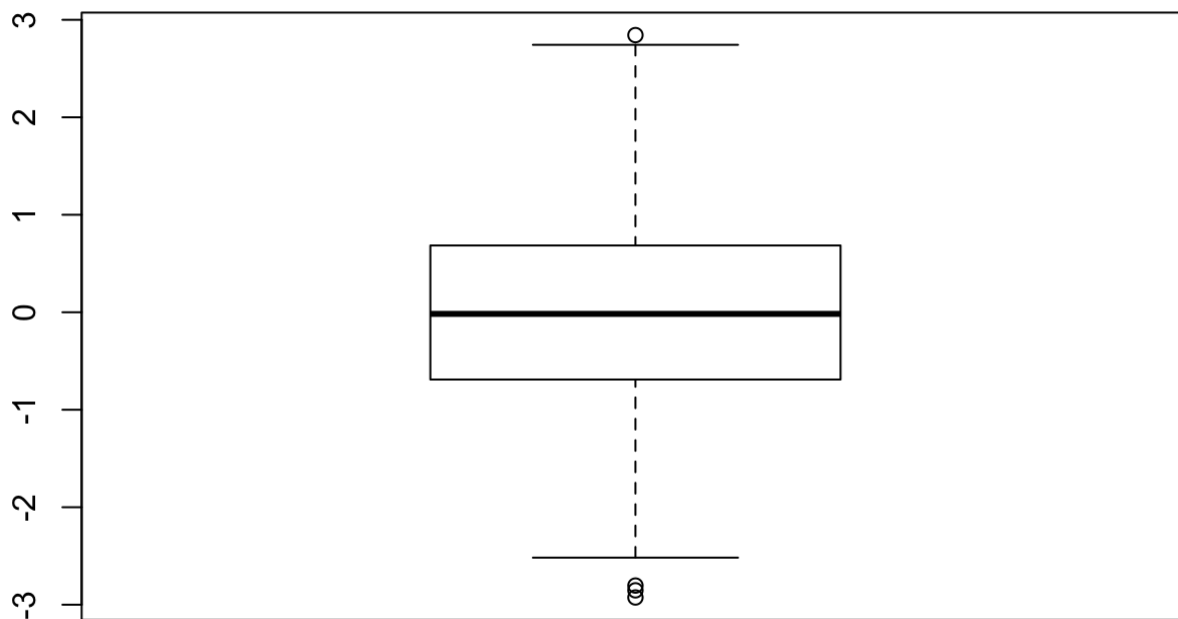
class05.R

Sharon

Tue Jan 22 12:04:49 2019

```
# Class 05 R graphics intro
```

```
# My first boxplot  
x <- rnorm(1000, 0)  
boxplot(x)
```

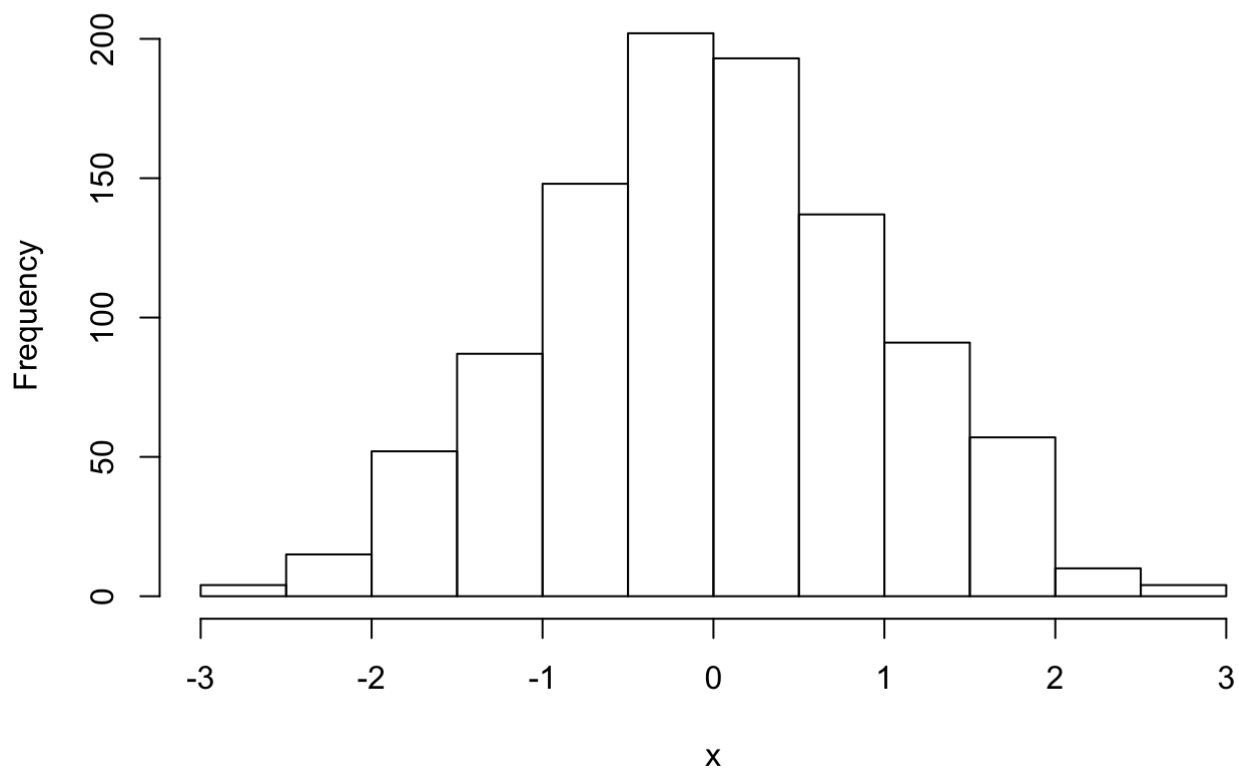


```
summary(x)
```

```
##      Min.   1st Qu.   Median     Mean   3rd Qu.    Max.     
## -2.925670 -0.689463 -0.016656  0.002956  0.683231  2.843187
```

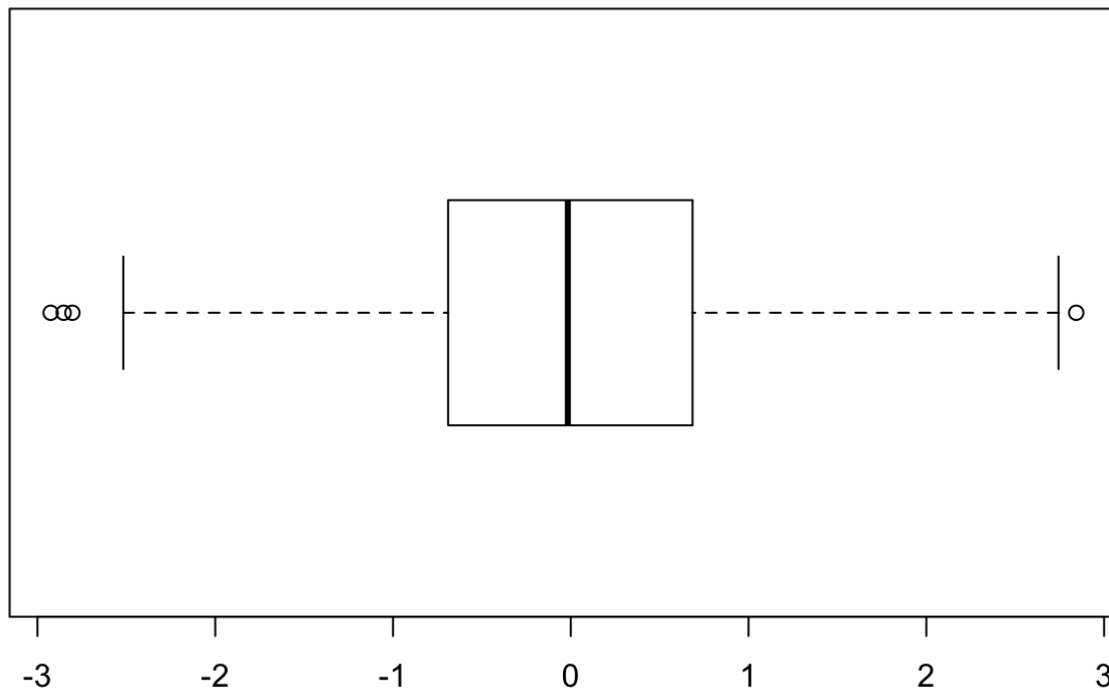
```
hist(x)
```

Histogram of x



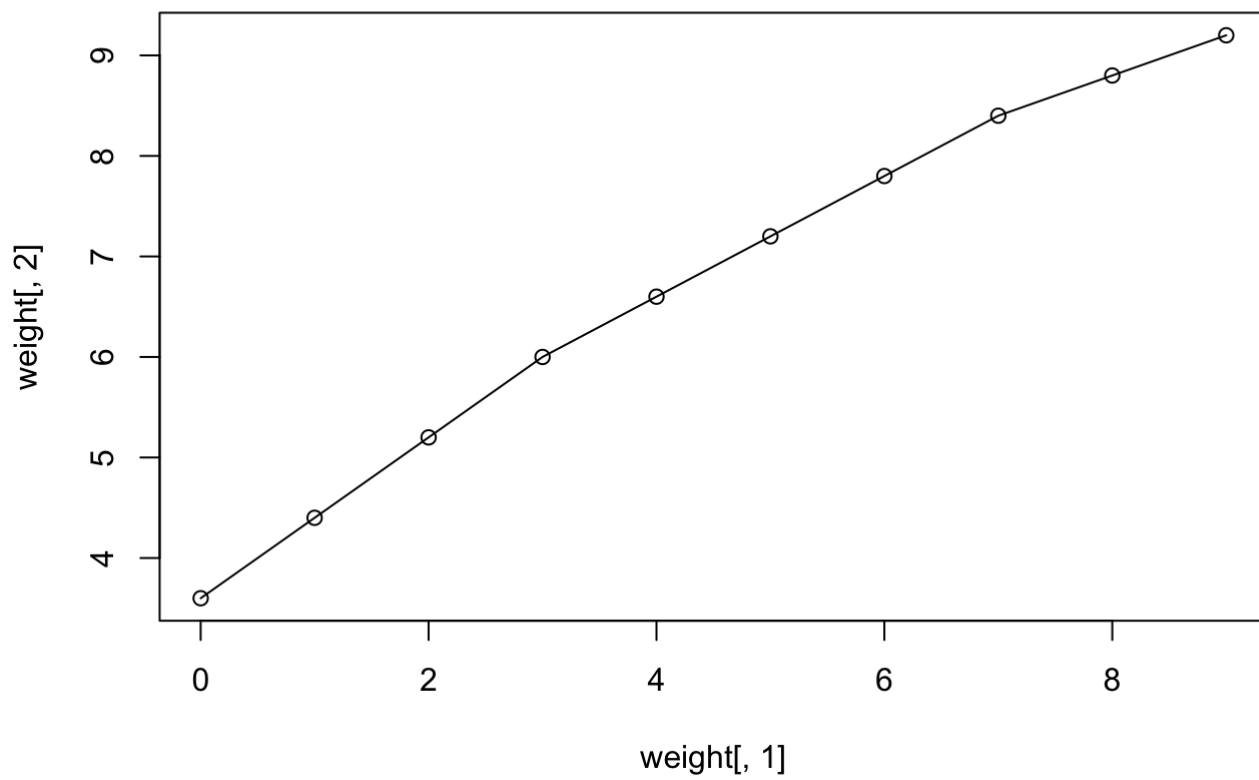
?boxplot

```
boxplot(x, horizontal = TRUE)
```



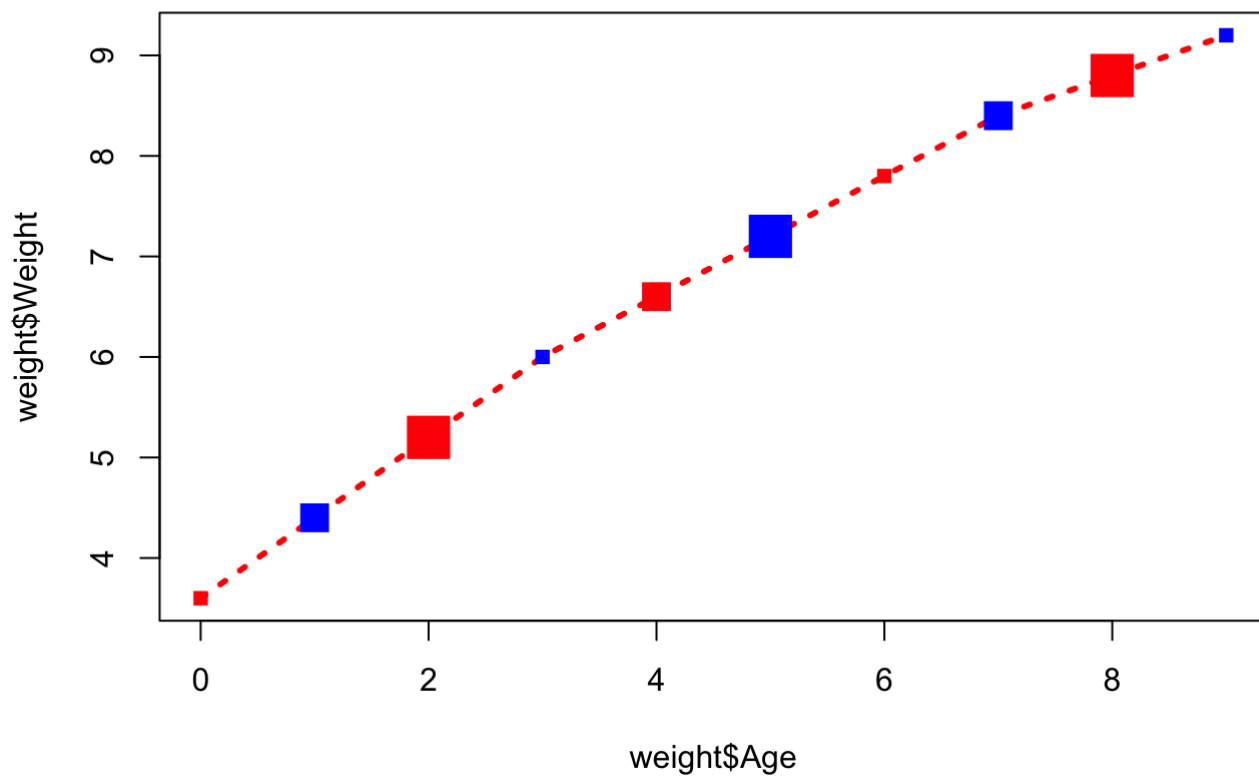
```
# Hands on session 2
weight <- read.table("bimm143_05_rstats/weight_chart.txt", header = TRUE)

plot(weight[,1], weight[,2], type = "o")
```

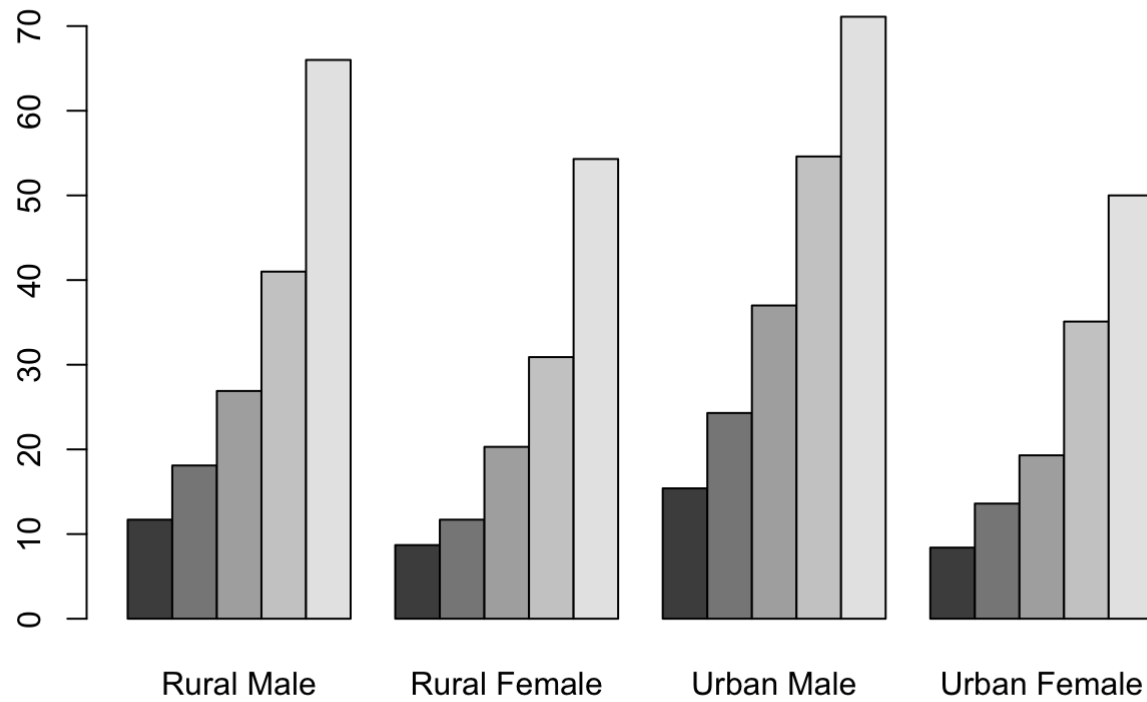


```
plot(weight$Age, weight$Weight, type = "o", main="some main title", pch=15, cex=1:3, col
      = c("red", "blue"),
      lwd=3, lty=3)
```

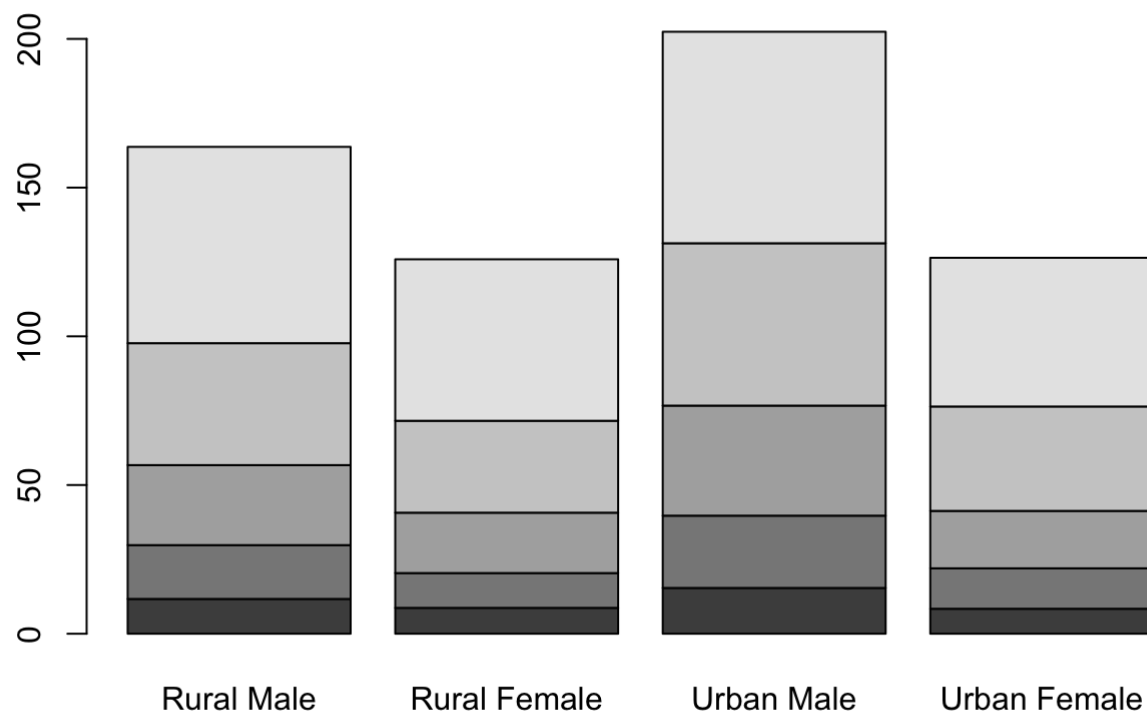
some main title



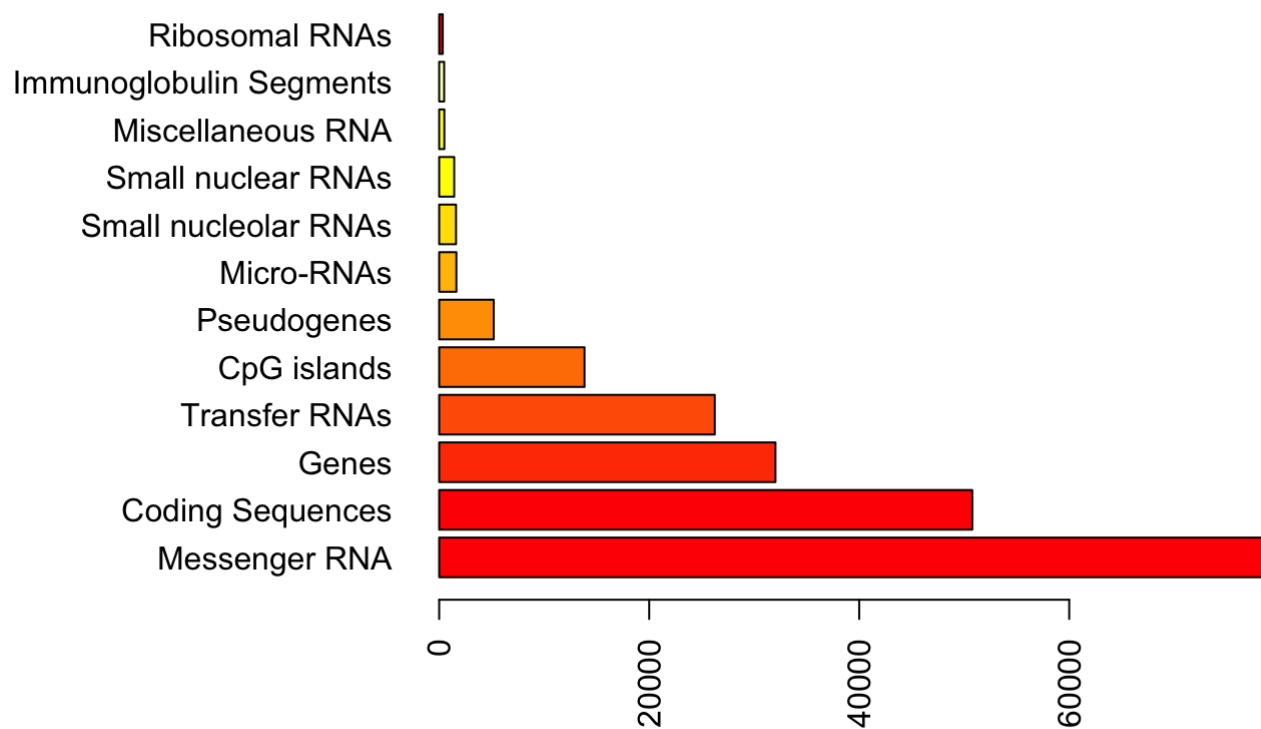
```
# Try a barplot  
barplot(VADeaths, beside = TRUE)
```



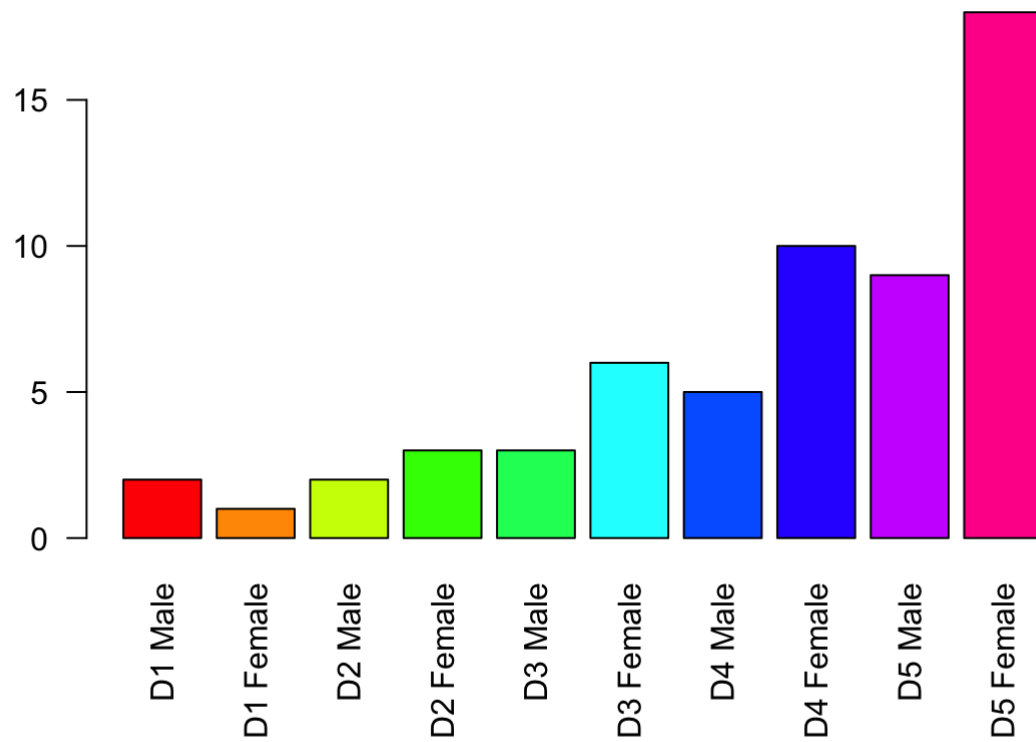
```
barplot(VADeaths, beside = FALSE)
```



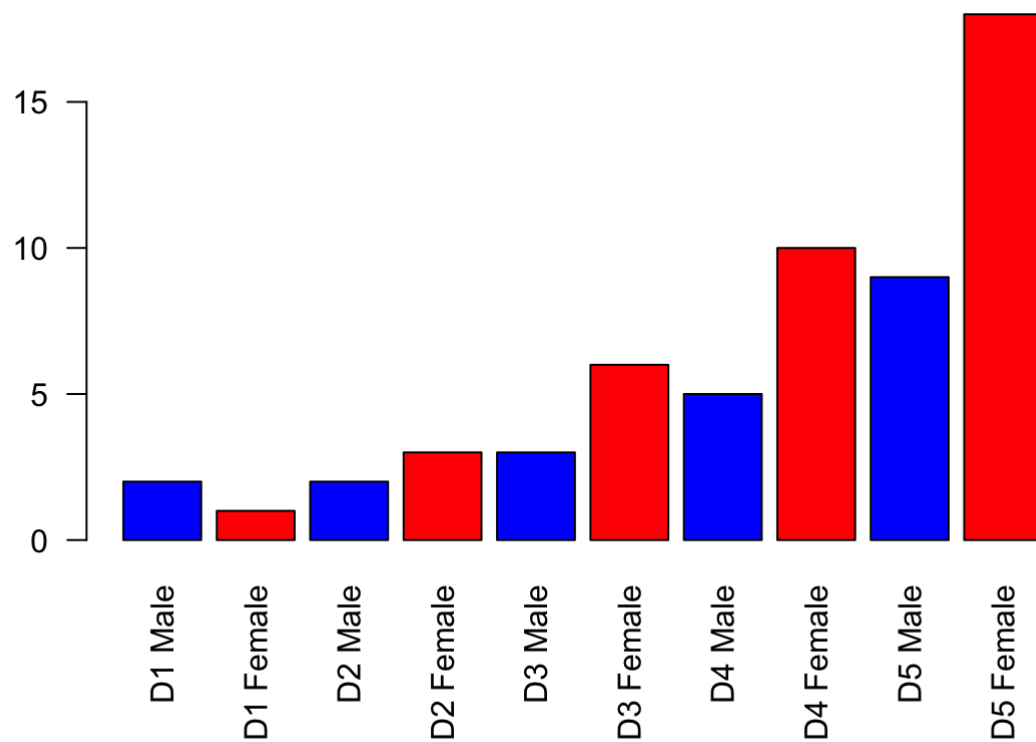
```
## Input our feature count data
mouse <- read.table("bimm143_05_rstats/feature_counts.txt", header=TRUE, sep="\t")
par(mar=c(5.1, 11.1, 4.1, 2.1))
barplot(mouse$Count, horiz = TRUE, names.arg = mouse$Feature, las=2, col=heat.colors(11))
```



```
## section 3A
malefemale <- read.table("bimm143_05_rstats/male_female_counts.txt", header=TRUE, sep=
"\t")
par(mar=c(8.1, 6.1, 3.1, 3.1))
barplot(malefemale$Count, horiz=FALSE, names.arg = malefemale$Sample,
las=2, col=rainbow(10))
```

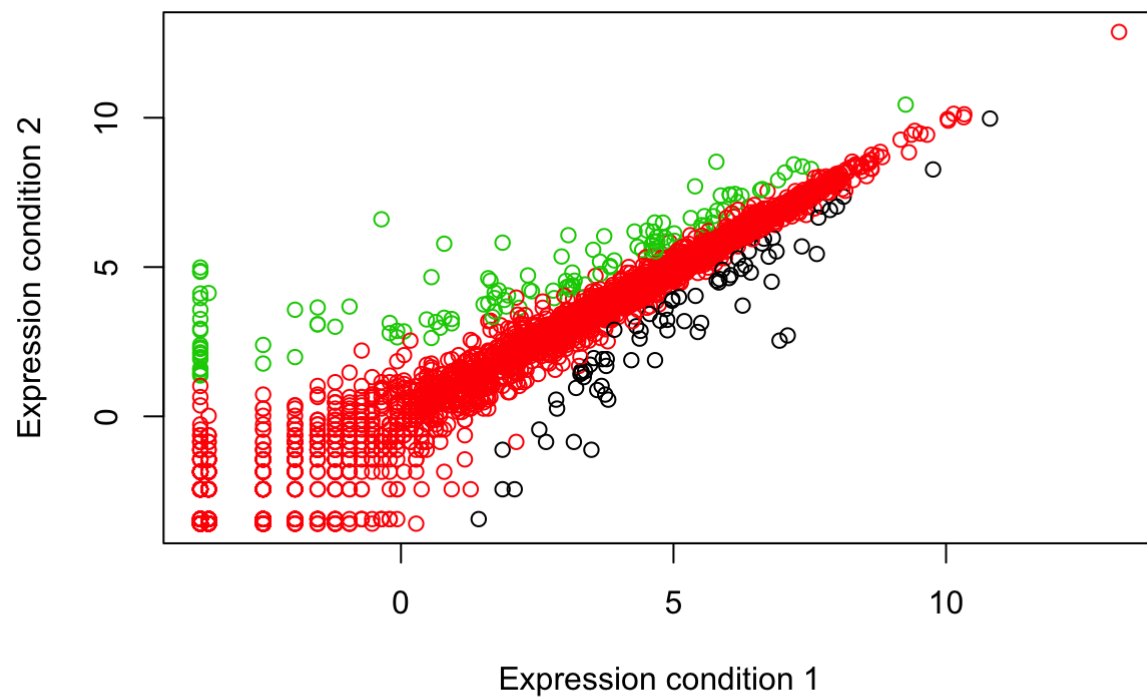
```
barplot(malefemale$Count, horiz=FALSE, names.arg = malefemale$Sample,  
        las=2, col=c("blue", "red"))
```



```
# 3B
genes <- read.delim("bimm143_05_rstats/up_down_expression.txt")
table(genes$State)
```

```
##
##      down  unchanging      up
##      72      4997      127
```

```
plot(genes$Condition1, genes$Condition2, col=genes$State,
      xlab = "Expression condition 1", ylab = "Expression condition 2")
```



```
#expression data
e <- read.table("bimm143_05_rstats/up_down_expression.txt", header = TRUE)
```

```
# how many genes?
nrow(e)
```

```
## [1] 5196
```

```
# how many up, down, all around?
e$State
```

[illegible]

[illegible]

[illegible]

```
## [967] unchanging unchanging unchanging up      unchanging unchanging
## [973] unchanging unchanging unchanging down    unchanging unchanging
## [979] unchanging unchanging unchanging unchanging unchanging unchanging
## [985] unchanging unchanging unchanging unchanging unchanging unchanging
## [991] unchanging unchanging unchanging unchanging unchanging unchanging
## [997] unchanging unchanging unchanging unchanging unchanging unchanging
## [1003] unchanging unchanging unchanging unchanging unchanging unchanging
## [1009] unchanging unchanging unchanging unchanging unchanging unchanging
## [1015] unchanging unchanging unchanging unchanging unchanging unchanging
## [1021] unchanging unchanging unchanging unchanging unchanging unchanging
## [1027] unchanging unchanging unchanging unchanging unchanging unchanging
## [1033] unchanging unchanging unchanging unchanging unchanging unchanging
## [1039] unchanging unchanging unchanging unchanging unchanging unchanging
## [1045] unchanging unchanging down      unchanging unchanging up
## [1051] unchanging unchanging unchanging unchanging unchanging unchanging
## [1057] up      unchanging unchanging unchanging unchanging up
## [1063] unchanging unchanging unchanging unchanging up      up
## [1069] unchanging unchanging down      unchanging unchanging unchanging
## [1075] unchanging unchanging unchanging unchanging unchanging unchanging
## [1081] down      unchanging unchanging unchanging unchanging unchanging
## [1087] unchanging unchanging unchanging unchanging unchanging unchanging
## [1093] unchanging unchanging unchanging unchanging unchanging unchanging
## [1099] unchanging unchanging unchanging unchanging unchanging unchanging
## [1105] unchanging unchanging unchanging down    unchanging unchanging
## [1111] unchanging unchanging unchanging unchanging unchanging unchanging
## [1117] unchanging unchanging unchanging unchanging unchanging unchanging
## [1123] unchanging unchanging unchanging unchanging down    unchanging
## [1129] unchanging unchanging unchanging unchanging unchanging up
## [1135] unchanging unchanging unchanging unchanging unchanging unchanging
## [1141] unchanging unchanging unchanging unchanging unchanging unchanging
## [1147] unchanging unchanging unchanging down    up      down
## [1153] down      unchanging unchanging down    unchanging up
## [1159] unchanging unchanging unchanging unchanging unchanging unchanging
## [1165] unchanging unchanging unchanging up      unchanging unchanging
## [1171] unchanging unchanging unchanging unchanging unchanging unchanging
## [1177] unchanging unchanging unchanging unchanging unchanging unchanging
## [1183] up      unchanging unchanging up      unchanging unchanging
## [1189] unchanging unchanging unchanging unchanging unchanging unchanging
## [1195] unchanging unchanging unchanging unchanging unchanging unchanging
## [1201] unchanging unchanging unchanging unchanging unchanging unchanging
## [1207] unchanging unchanging unchanging unchanging unchanging unchanging
## [1213] unchanging unchanging unchanging unchanging unchanging unchanging
## [1219] unchanging unchanging unchanging unchanging unchanging unchanging
## [1225] unchanging unchanging unchanging unchanging unchanging unchanging
## [1231] unchanging unchanging unchanging unchanging unchanging unchanging
## [1237] unchanging unchanging unchanging unchanging unchanging unchanging
## [1243] unchanging unchanging unchanging unchanging unchanging unchanging
## [1249] unchanging unchanging unchanging unchanging unchanging unchanging
## [1255] unchanging unchanging unchanging unchanging unchanging unchanging
## [1261] unchanging unchanging unchanging unchanging unchanging unchanging
## [1267] unchanging unchanging unchanging unchanging unchanging unchanging
## [1273] unchanging up      unchanging unchanging unchanging unchanging
## [1279] unchanging unchanging unchanging unchanging unchanging unchanging
## [1285] unchanging unchanging unchanging unchanging unchanging unchanging
```

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

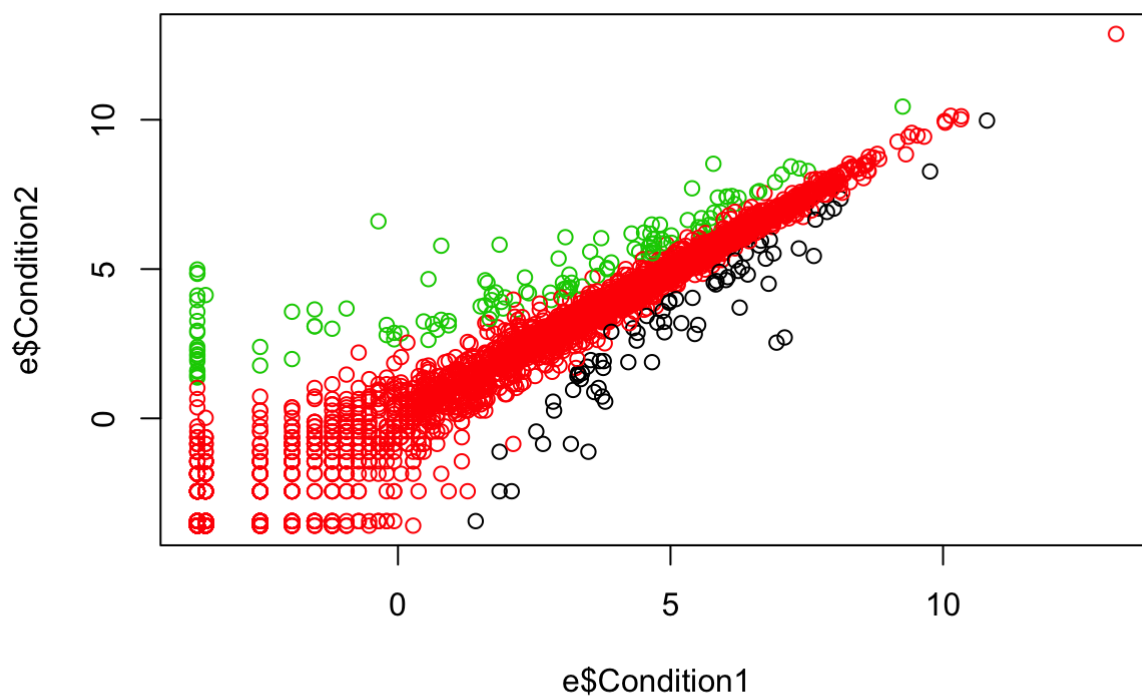
[illegible]

```
## [5179] unchanging unchanging unchanging unchanging unchanging unchanging
## [5185] unchanging unchanging unchanging unchanging unchanging unchanging
## [5191] unchanging unchanging unchanging unchanging unchanging unchanging
## Levels: down unchanging up
```

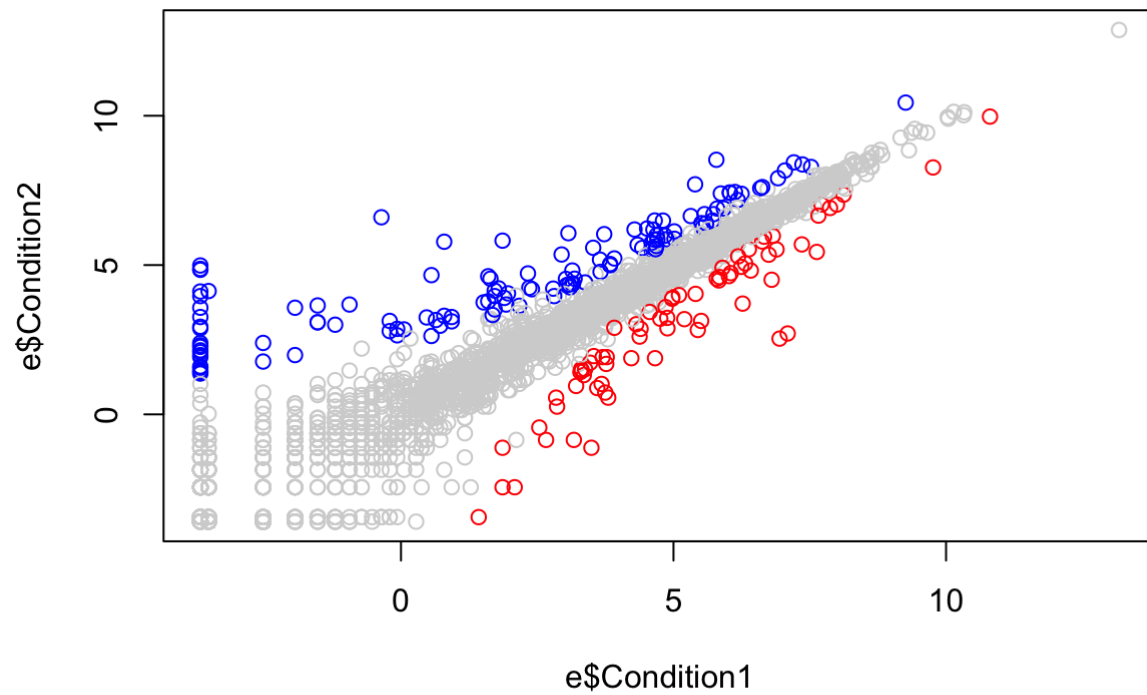
```
table(e$State)
```

```
##
##      down unchanging      up
##      72      4997      127
```

```
plot(e$Condition1, e$Condition2, col=e$State)
```



```
#play
palette(c("red", "lightgray", "blue"))
plot(e$Condition1, e$Condition2, col=e$State)
```



#3C