Exercise 3

Your Name

14 Dec 2015

1. Reading the Data

```
rawData <- read.delim("countData.txt")
rawData[1:10,]
```

```
##    Patient Nuclei NB_Amp NB_Nor NB_Del
## 1        1     65      0     63      2
## 2        2     51      3     43      5
## 3        3     37      2     35      0
## 4        4     37      2     35      0
## 5        5     45      2     42      1
## 6        6     46      4     41      1
## 7        7     65      1     64      0
## 8        8     59      1     54      4
## 9        9     49      0     48      1
## 10      10     46      0     45      1
```
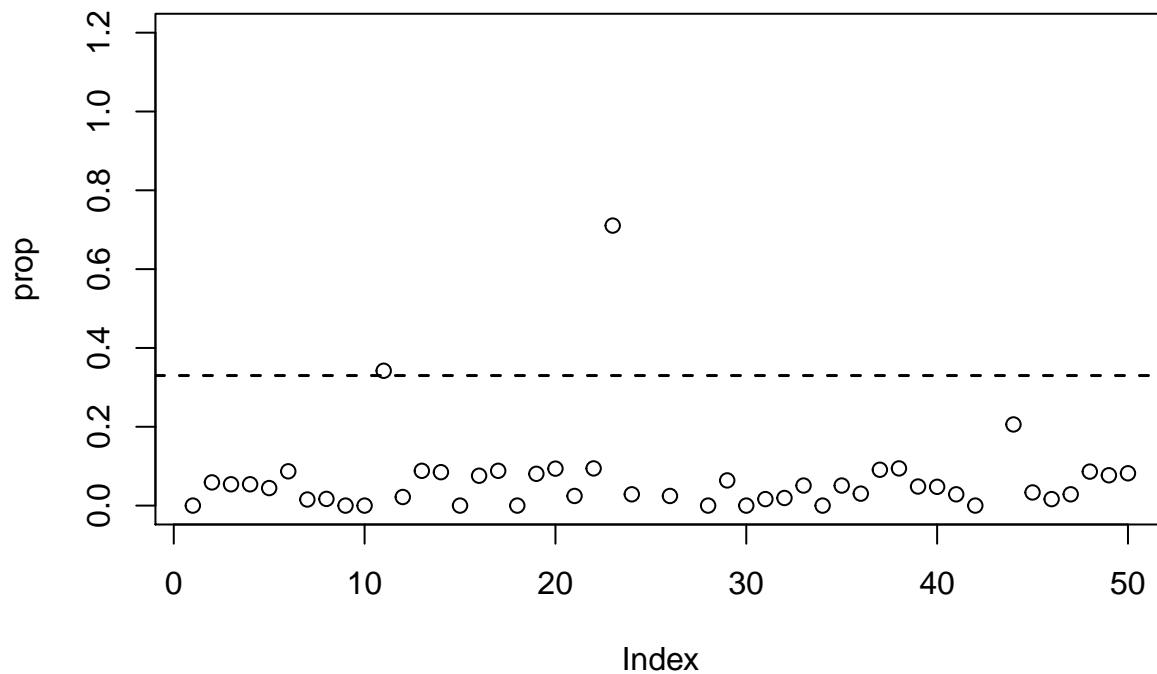
2. Analysis

a) Manipulating and reshaping

```
prop <- rawData$NB_Amp / rawData$Nuclei
amp <- which(prop > 0.33)
```

b) Plottting

```
plot(prop, ylim=c(0,1.2)) # plot a simple chart of NB amplifications
abline(h=0.33, lwd=1.5, lty=2) # Add a dotted line at 33%
```

Writing out the results

```r
# Write out results table as comma separated values file
write.csv(rawData[amp,],file="selectedSamples.csv")
```

Which samples are near normal?

```r
norm <- which(prop < 0.33 & rawData$NB_Del == 0)
norm
```

```
##  [1]  3  4  7 15 20 24 36 37 42 47
```

```r
write.csv(rawData[norm,], "My_NB_output.csv")
```