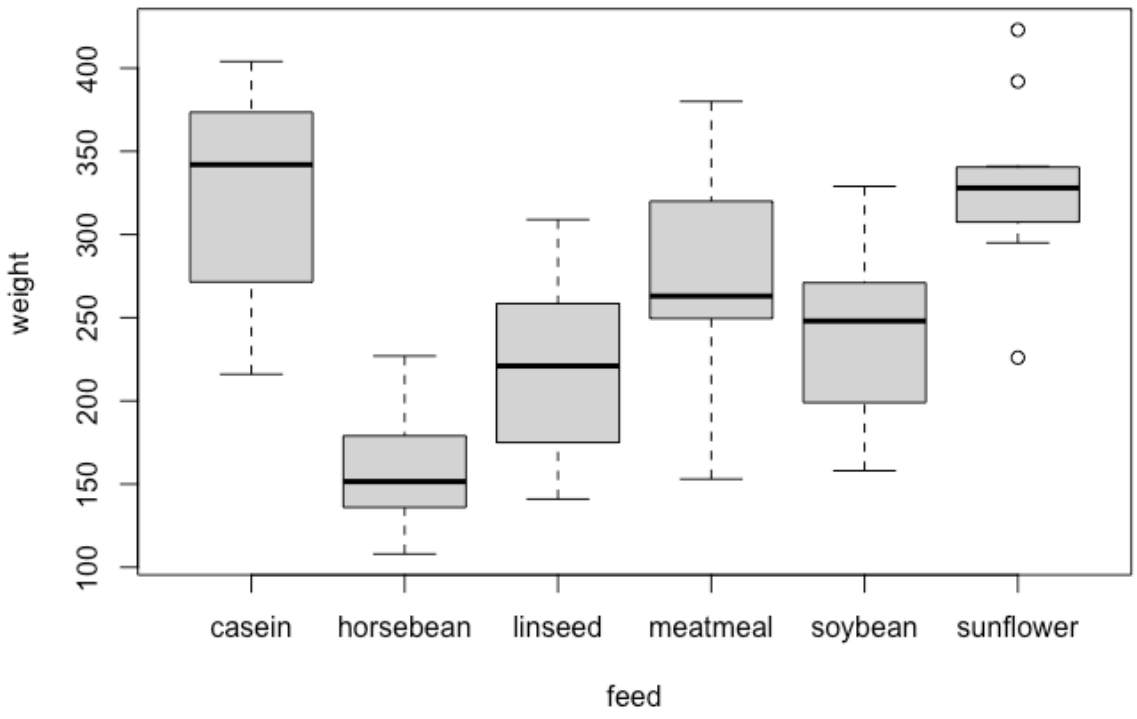
Question 1

Q1(a)

chickwts
attach(chickwts)

boxplot(weight~feed)

the boxplot below clearly displays the difference in chickens weight through graphing and outlier. It is clear from my boxplot below that chickens fed casein food are heavier and chickens fed horsbean are lighter

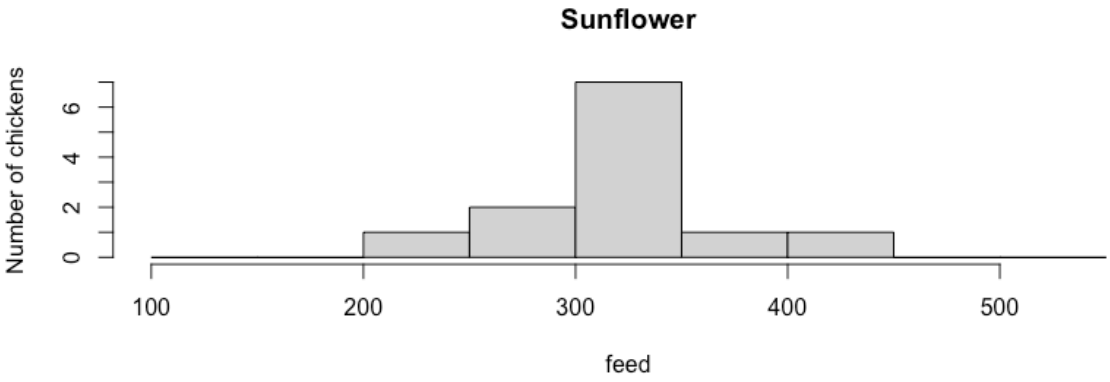


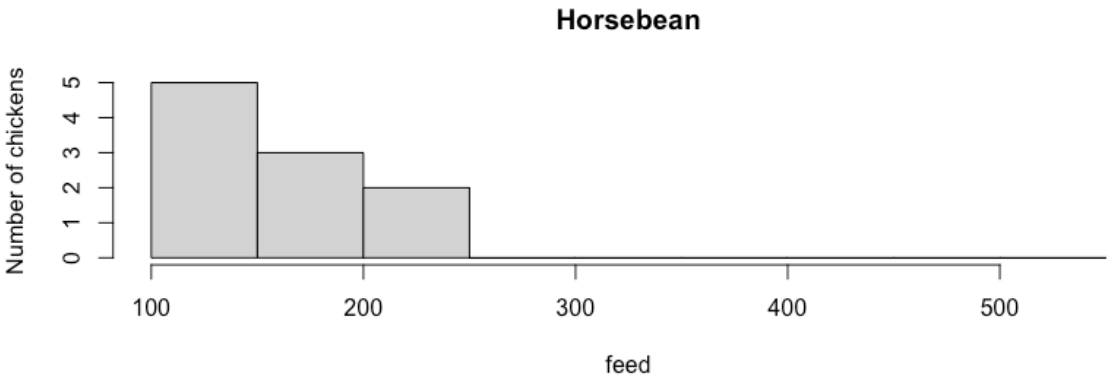
Q1(b)

chickwts

```
par(mfrow=c(2,1))
hist(main="Sunflower",ylab ='Number of chickens',xlab ='feed',weight[feed
=='sunflower'],breaks=c(100,150,200,250,300,350,400,450,500,550))
hist(main="Horsebean",ylab ='Number of chickens',xlab ='feed',weight[ feed ==
'horsebean'],breaks=c(100,150,200,250,300,350,400,450,500,550))
```

there is a significant difference between two graphs, horsebean is less distributed.





Q1c

Lowest variance is horsebean

output

```
horsebean <-weight[1:10]
> mean(horsebean)
[1] 160.2
> var(horsebean)
```

```
[1] 1491.956
> linseed <-weight[11:22]
> mean(linseed)
[1] 218.75
> var(linseed)
[1] 2728.568
>
> soybean <-weight[23:36]
> mean(soybean)
[1] 246.4286
> var(soybean)
[1] 2929.956
> sunflower <-weight[37:48]
> mean(sunflower)
[1] 328.9167
> var(sunflower)
[1] 2384.992
>
> meatmeal <-weight[49:59]
> mean(meatmeal)
[1] 276.9091
> var(meatmeal)
[1] 4212.091
> casein <-weight[60:71]
> mean(casein)
[1] 323.5833
> var(casein)
[1] 4151.72
```