Bioinformatics in R

Basic Unix

ls

Basic R

Plots using dataset inside R package

Analysis of the cars dataset

Part 1

```
data(cars)
head(cars,3)
```

```
## speed dist
## 1 4 2
## 2 4 10
## 3 7 4
```

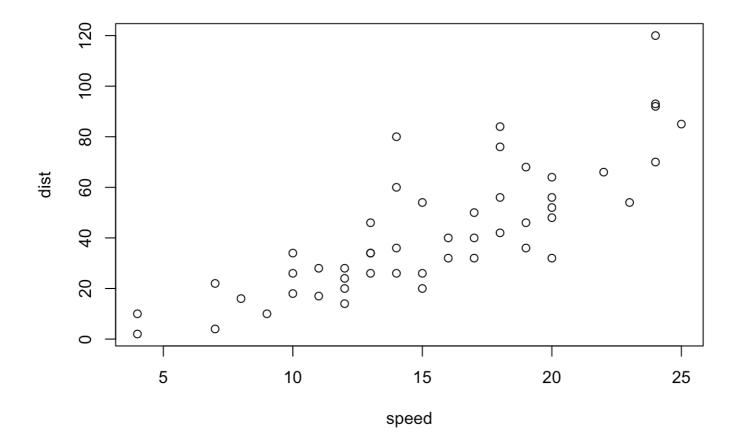
```
str(cars)
```

```
## 'data.frame': 50 obs. of 2 variables:
## $ speed: num 4 4 7 7 8 9 10 10 10 11 ...
## $ dist : num 2 10 4 22 16 10 18 26 34 17 ...
```

```
summary(cars)
```

```
##
        speed
                        dist
##
   Min.
           : 4.0
                   Min. : 2.00
    1st Qu.:12.0
                   1st Qu.: 26.00
##
##
   Median:15.0
                   Median : 36.00
                        : 42.98
   Mean
           :15.4
##
                   Mean
##
    3rd Qu.:19.0
                   3rd Qu.: 56.00
   Max.
          :25.0
                         :120.00
                   Max.
```

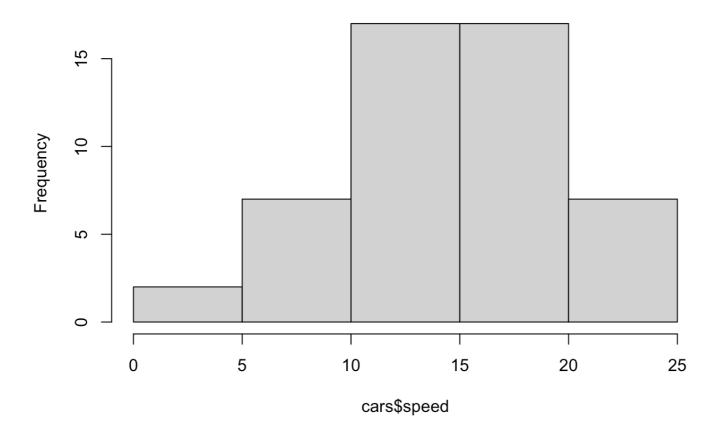
```
plot(cars)
```



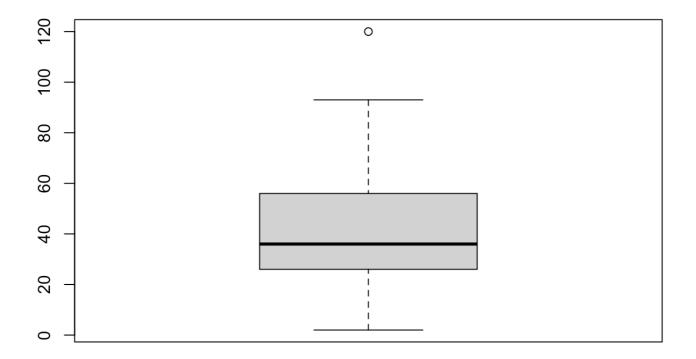
Part 2

hist(cars\$speed)

Histogram of cars\$speed



boxplot(cars\$dist)



The mean speed of cars was 15.4. inline equation x = 50 - x/n display equation

$$x = 50 - x/2n$$

horizontal Rule / page break

Statistics in R

RNA-seq

Proteomics

Genome methylation

(End)