

Prezentacja i wizualizacja danych

Organizacyjnie

Prowadzący:

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<http://mariuszrafalo.pl> (hasło:WIZ)

Wybrane funkcje z pakietu *graphics*

Wybrane parametry funkcji *plot*

- `type`
- `xlab/ylab`
- `xlim/ylim`
- `lwd`
- `lty`
- `col`
- `main`
- `pch`

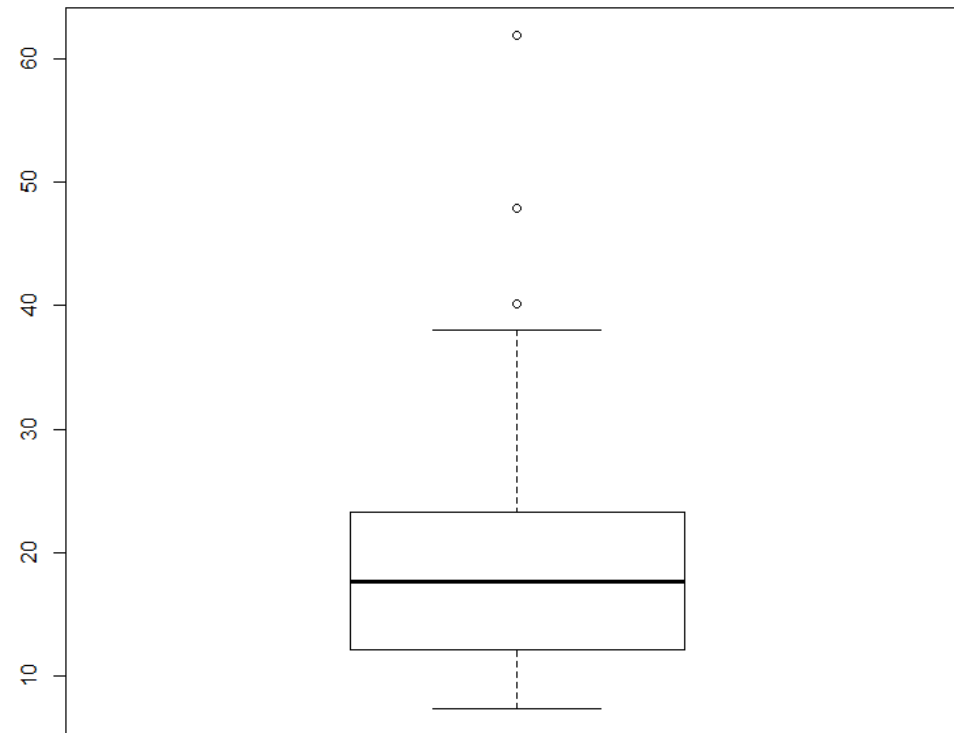
Dane

- Pracujemy na danych ze zbioru `Cars93`, które pochodzą z pakietu `MASS`
- Zatem, należy:
 - Zainstalować pakiet `MASS`
 - Załadować zbiór danych `Cars93` do pamięci:

```
library(MASS)  
data(Cars93)
```

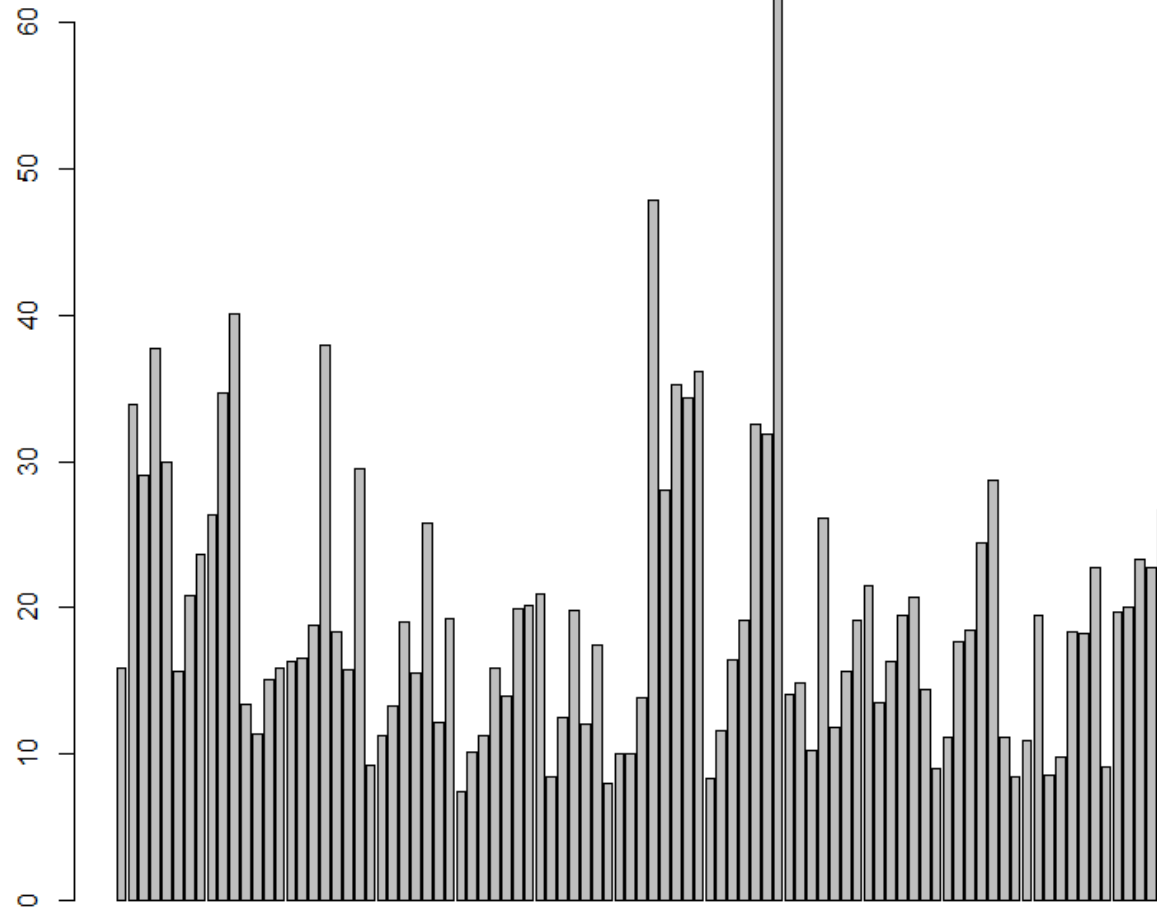
boxplot

```
boxplot(Cars93$Price)
```



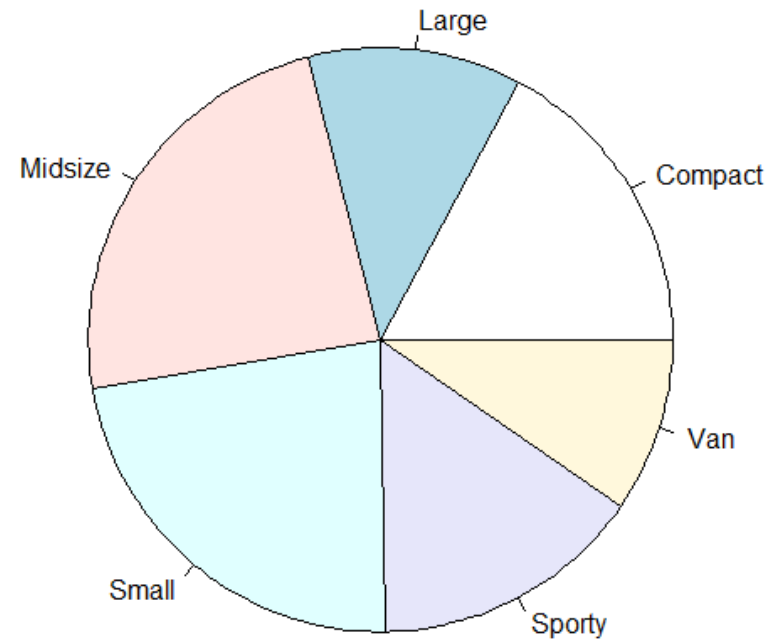
barplot

```
barplot(Cars93$Price)
```



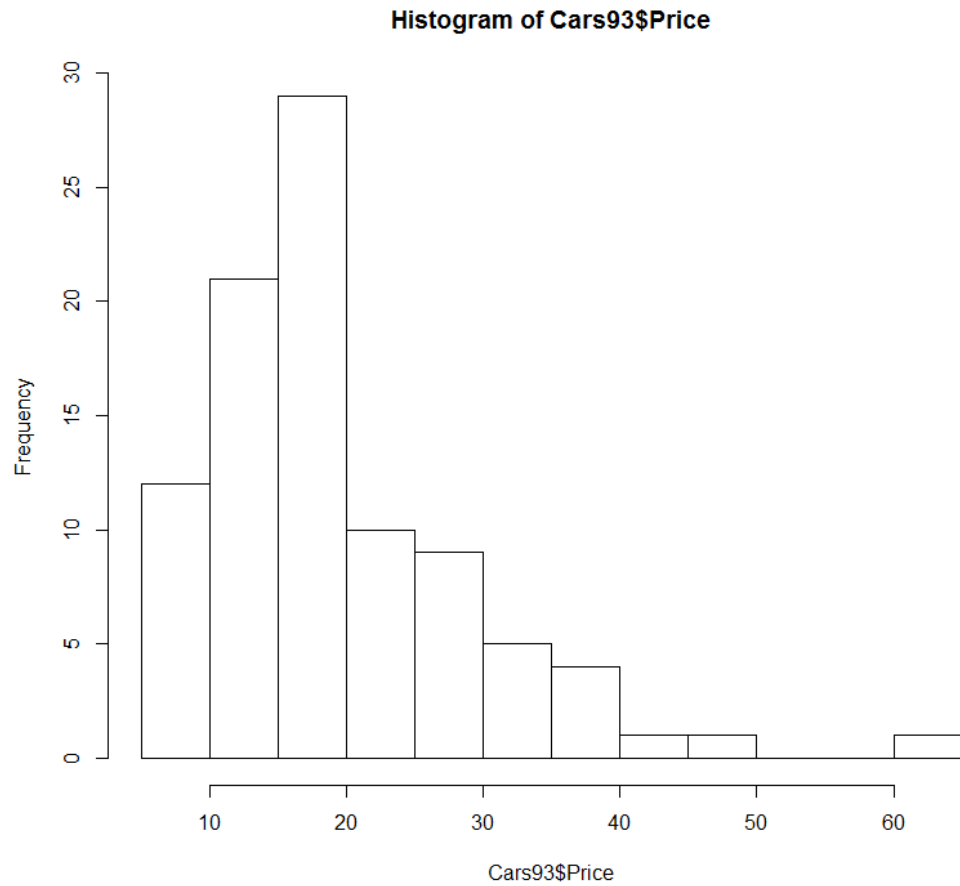
pie

```
pie(table(Cars93$Type))
```

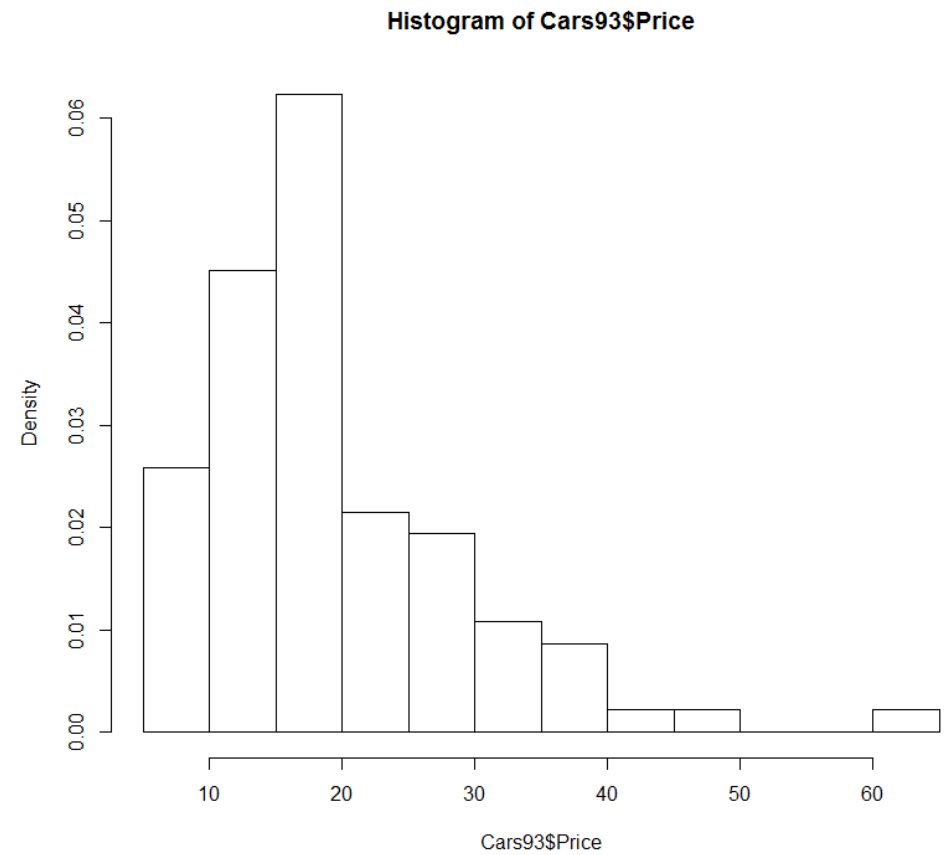


hist

```
hist(Cars93$Price)
```

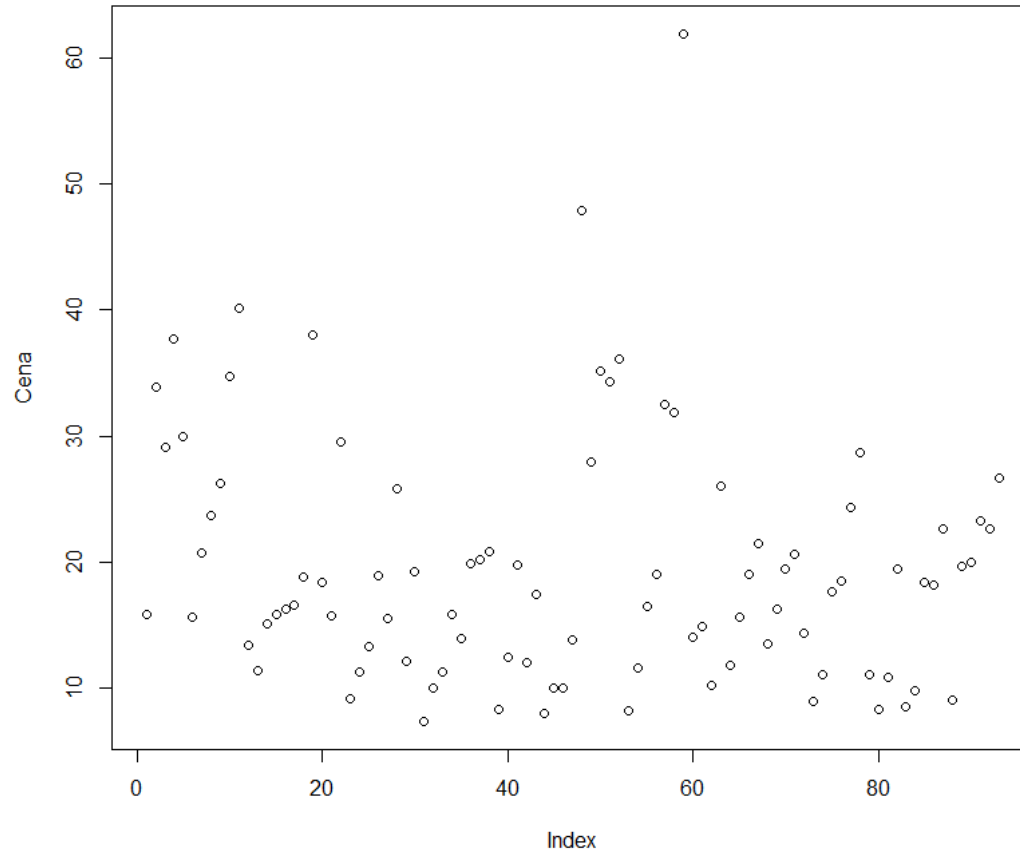


```
hist(Cars93$Price, prob = TRUE)
```



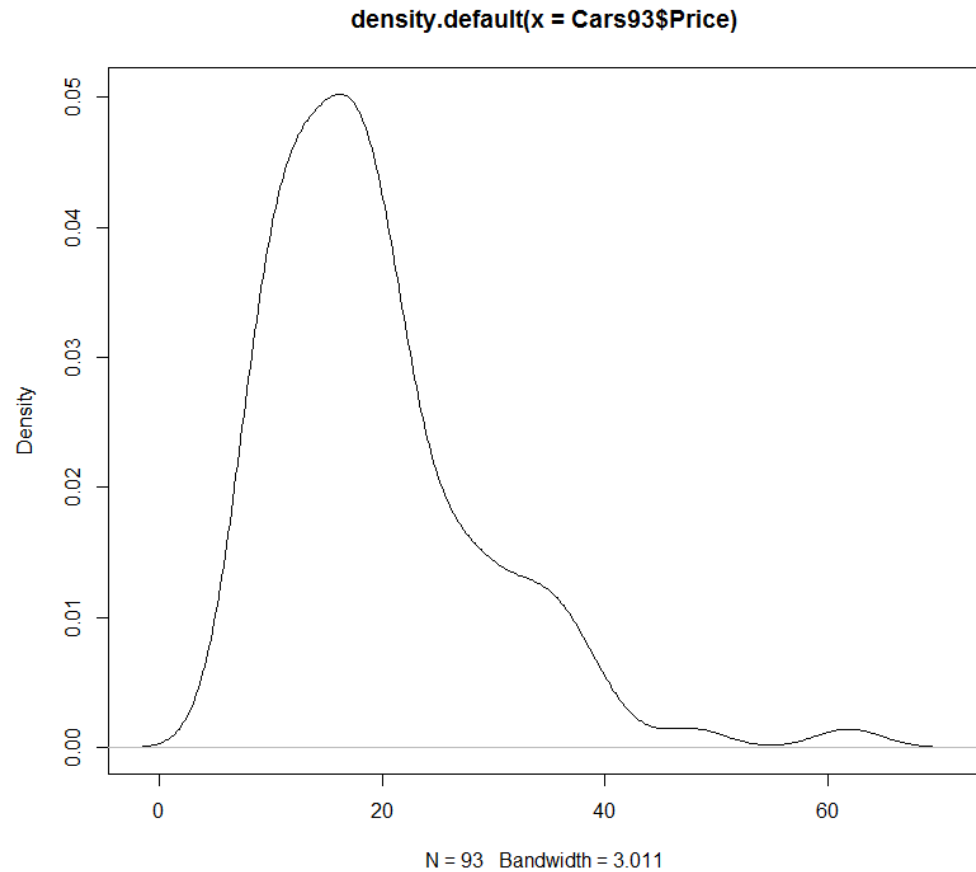
plot

```
plot(Cars93$Price, xlab="Index", ylab="Cena")
```

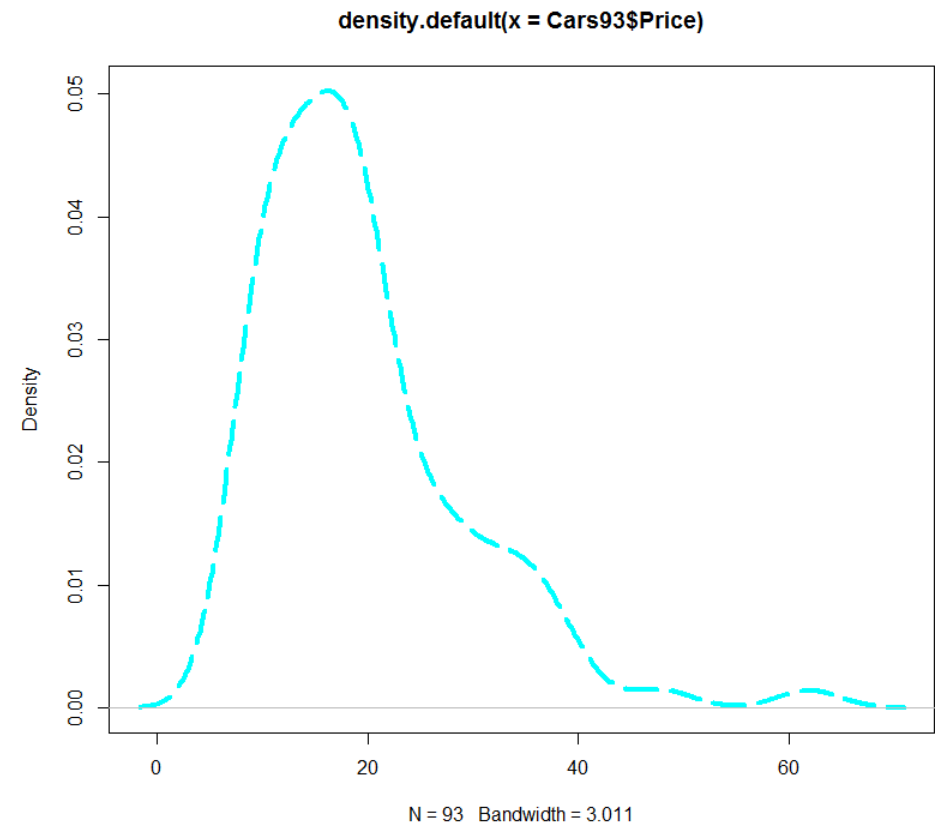


plot

```
plot(density(Cars93$Price))
```

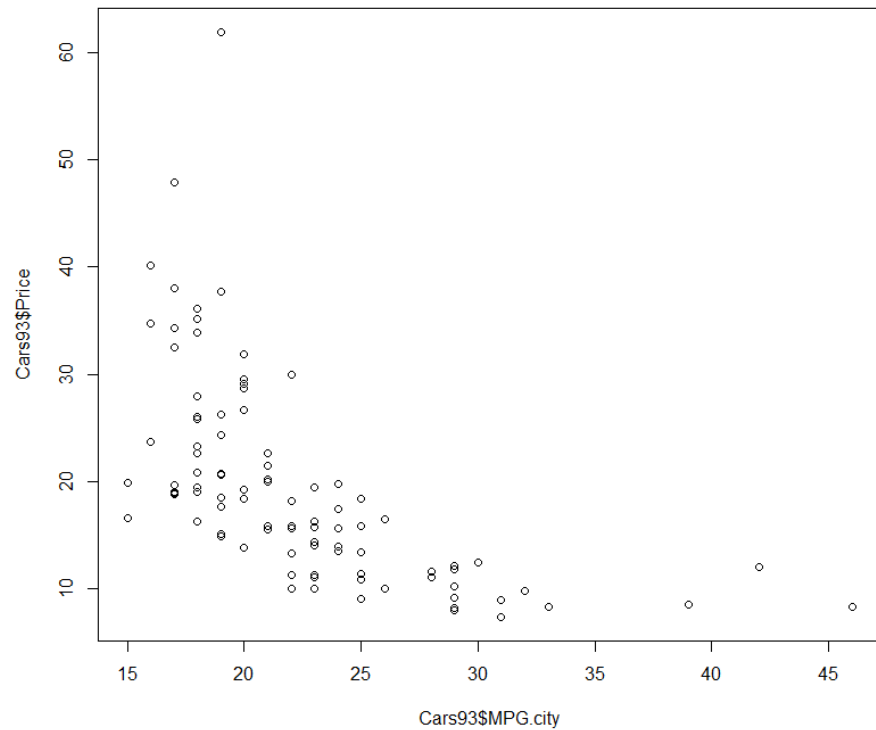


```
plot(density(Cars93$Price), lwd=4,  
lty=5, col=21)
```

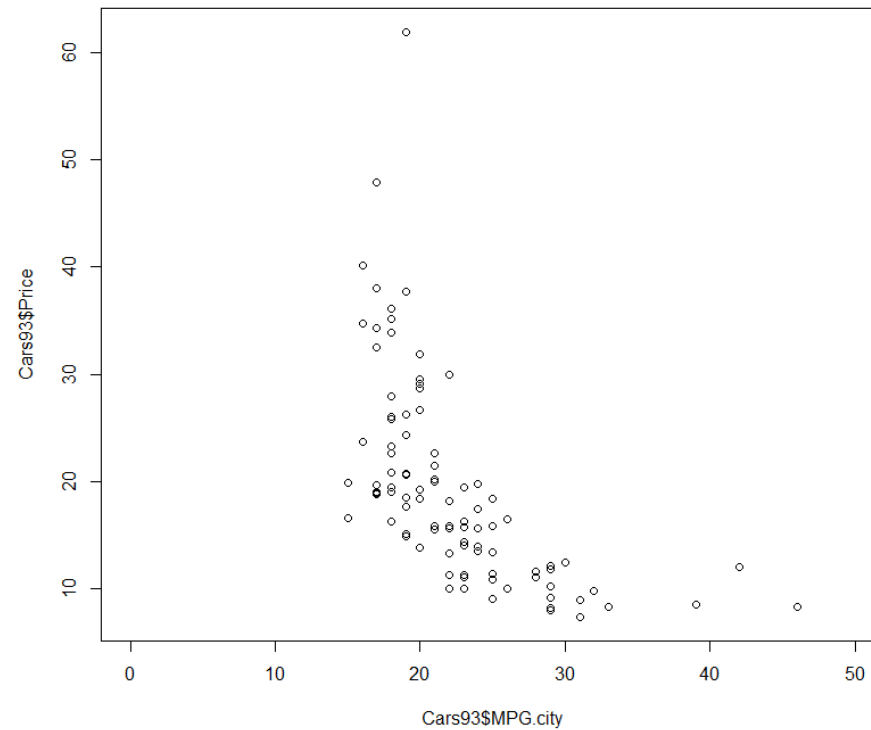


plot

```
plot(Cars93$Price~Cars93$MPG.city)
```

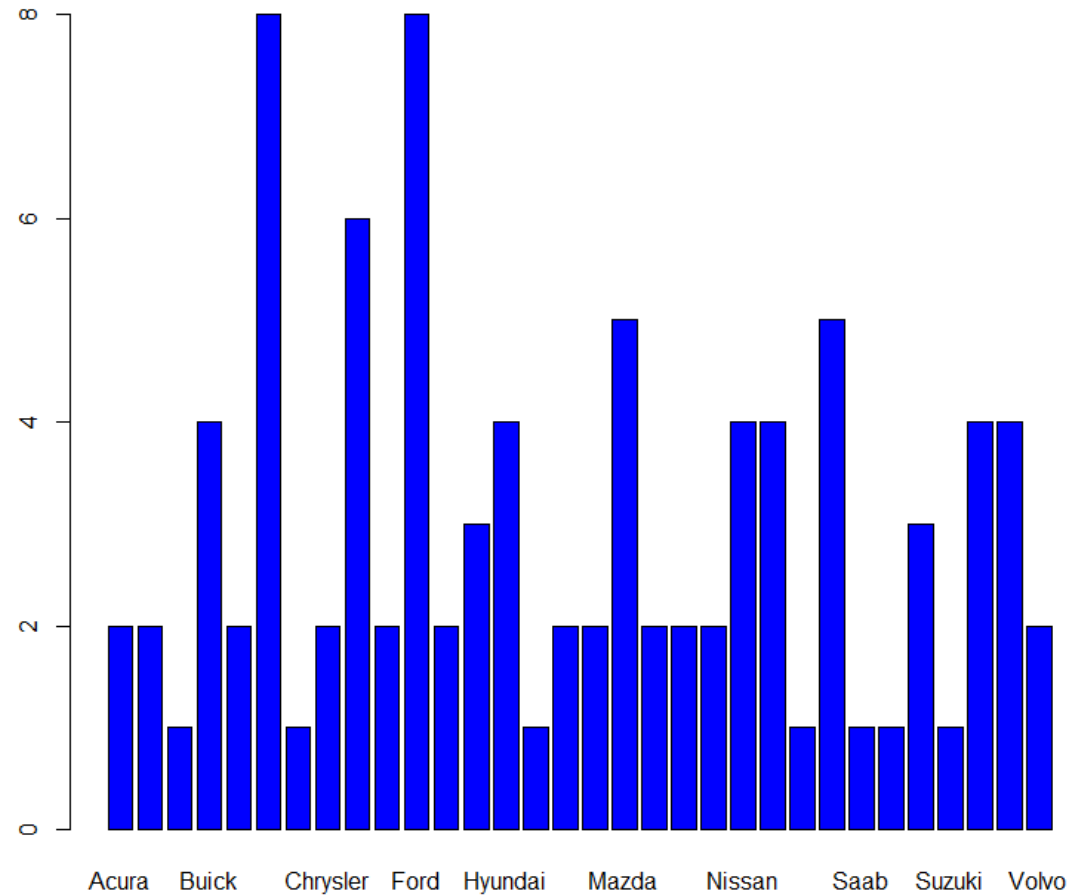


```
plot(Cars93$Price~Cars93$MPG.city,xlim=c(0,50))
```



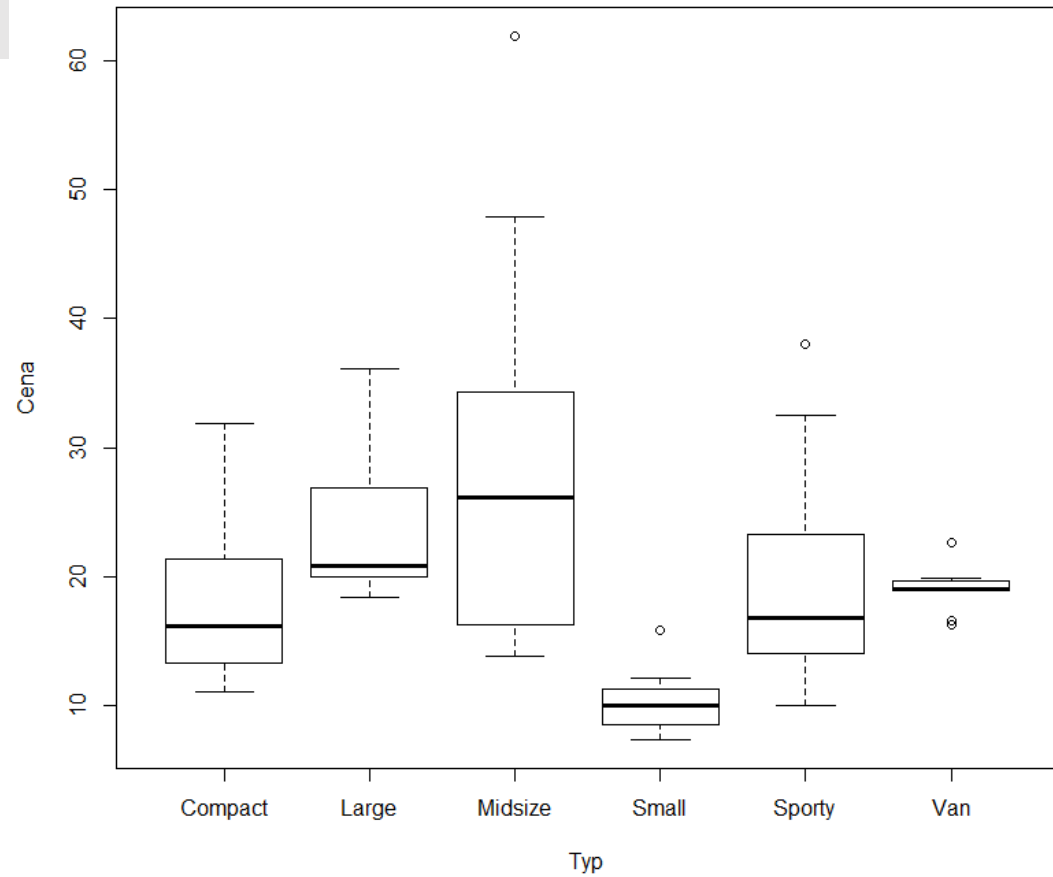
plot

```
plot(Cars93$Manufacturer,col=12)
```



plot

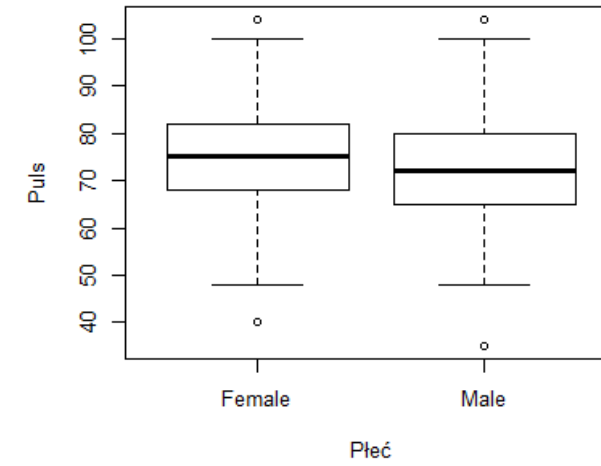
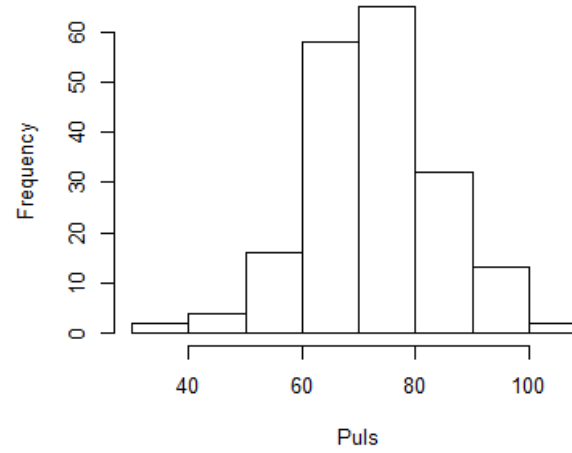
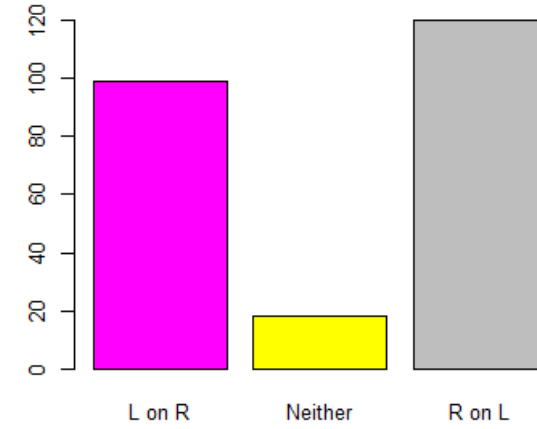
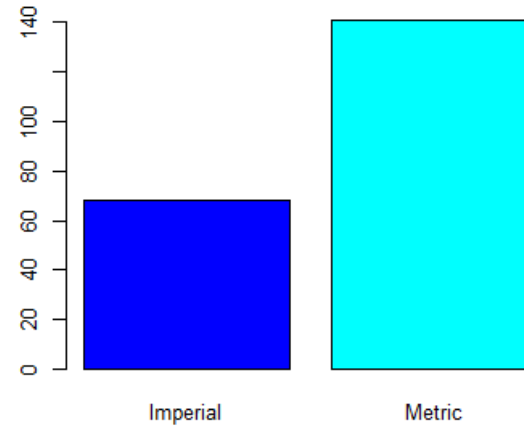
```
plot(Cars93$Price~Cars93$Type,  
xlab="Typ", ylab="Cena")
```



Kilka wykresów

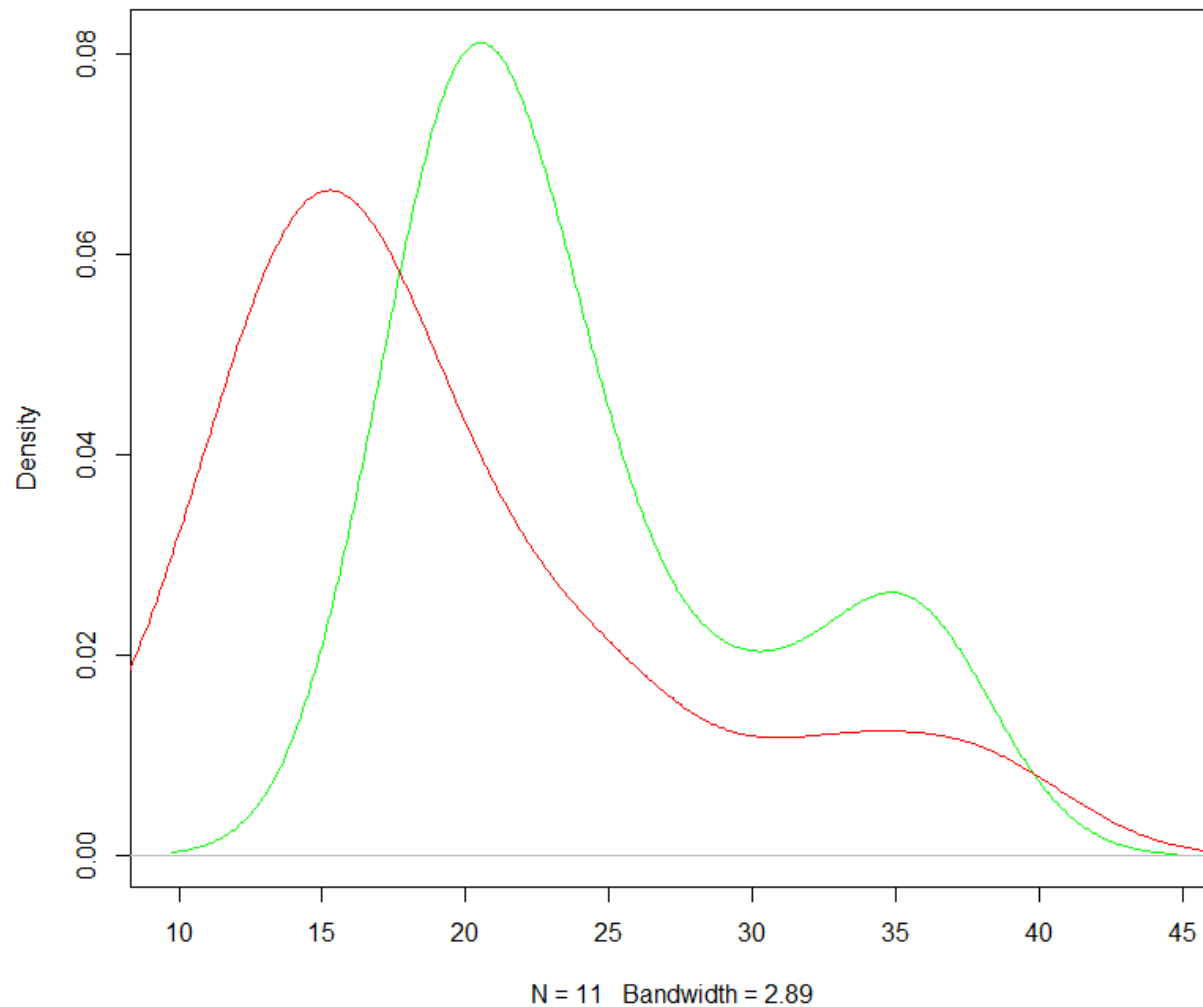
Podział ekranu

```
par(mfrow=c(2,2))
```



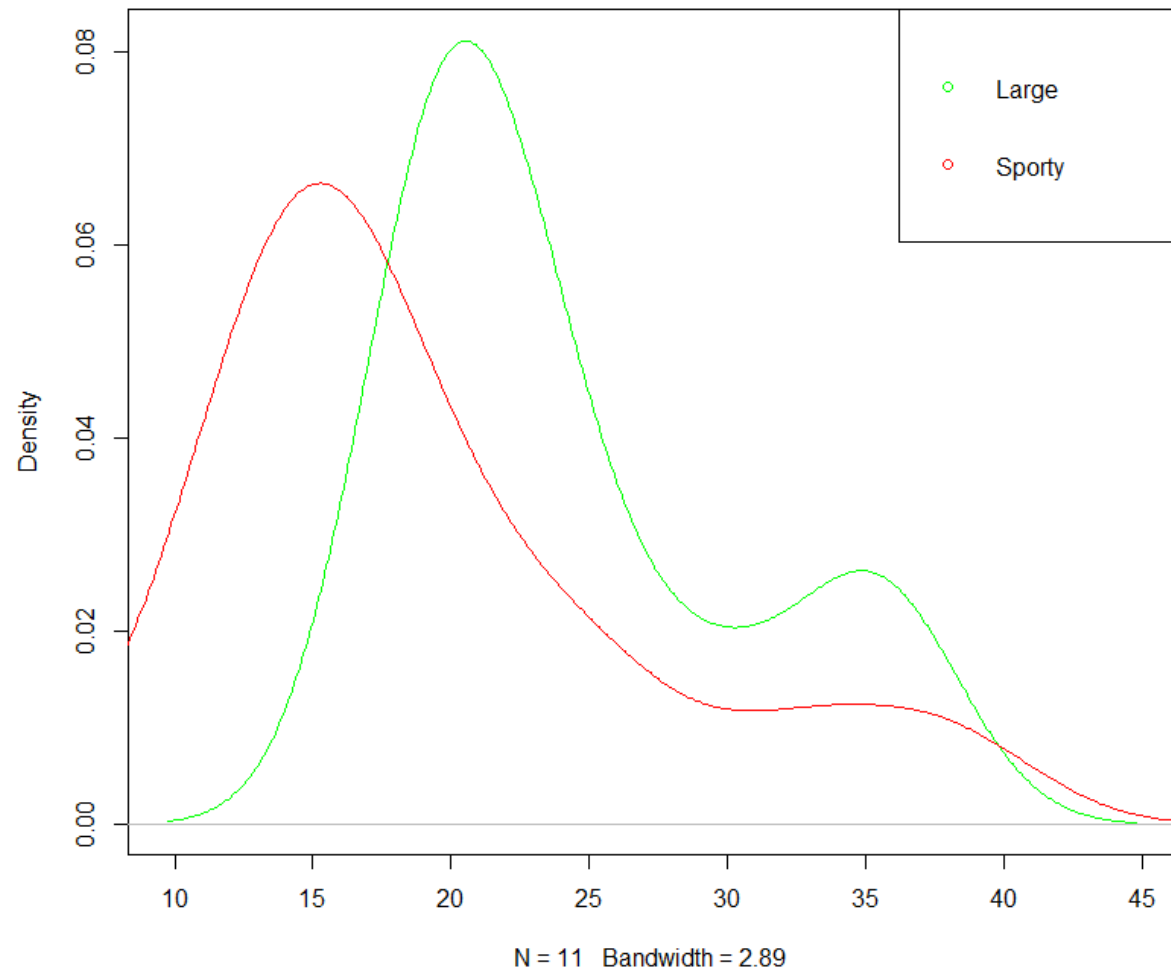
Kategorie na wykresie

```
d0<-  
density(Cars93[Cars93$Type=="Large"  
,]$Price)  
d1<-  
density(Cars93[Cars93$Type=="Sporty"  
,]$Price)  
plot(d0,col="green",main="")  
lines(d1,col="red")
```



Legenda

```
d0<-  
density(Cars93[Cars93$Type=="Large",]$Price)  
d1<-  
density(Cars93[Cars93$Type=="Sporty",]$Price)  
plot(d0,col="green",main="")  
lines(d1,col="red")  
legend('topright',legend=c("Large","Sporty"),  
col=c("green","red"),pch=c(1,1))
```



Dziękuję za uwagę

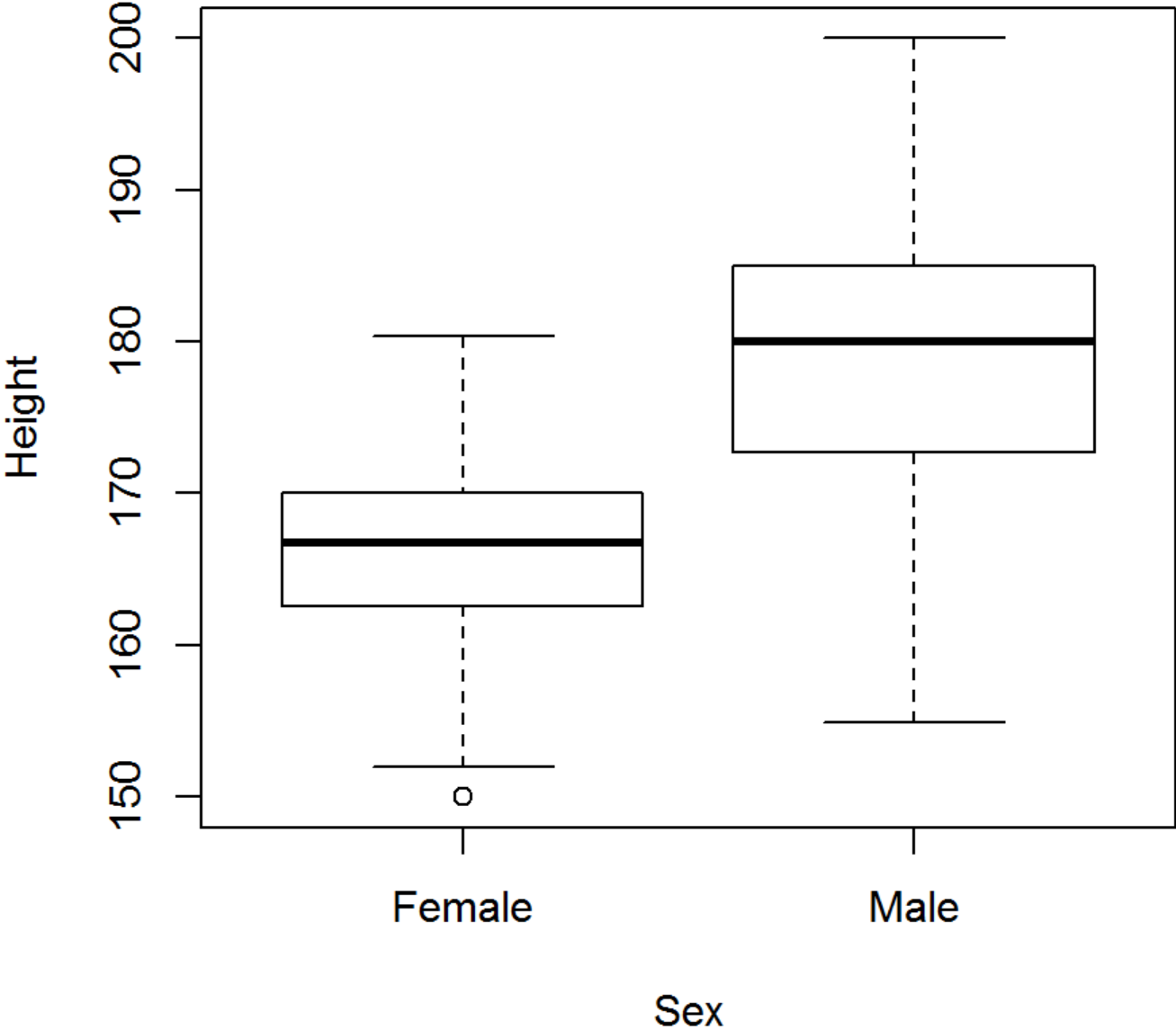
Ćwiczenia

Dane

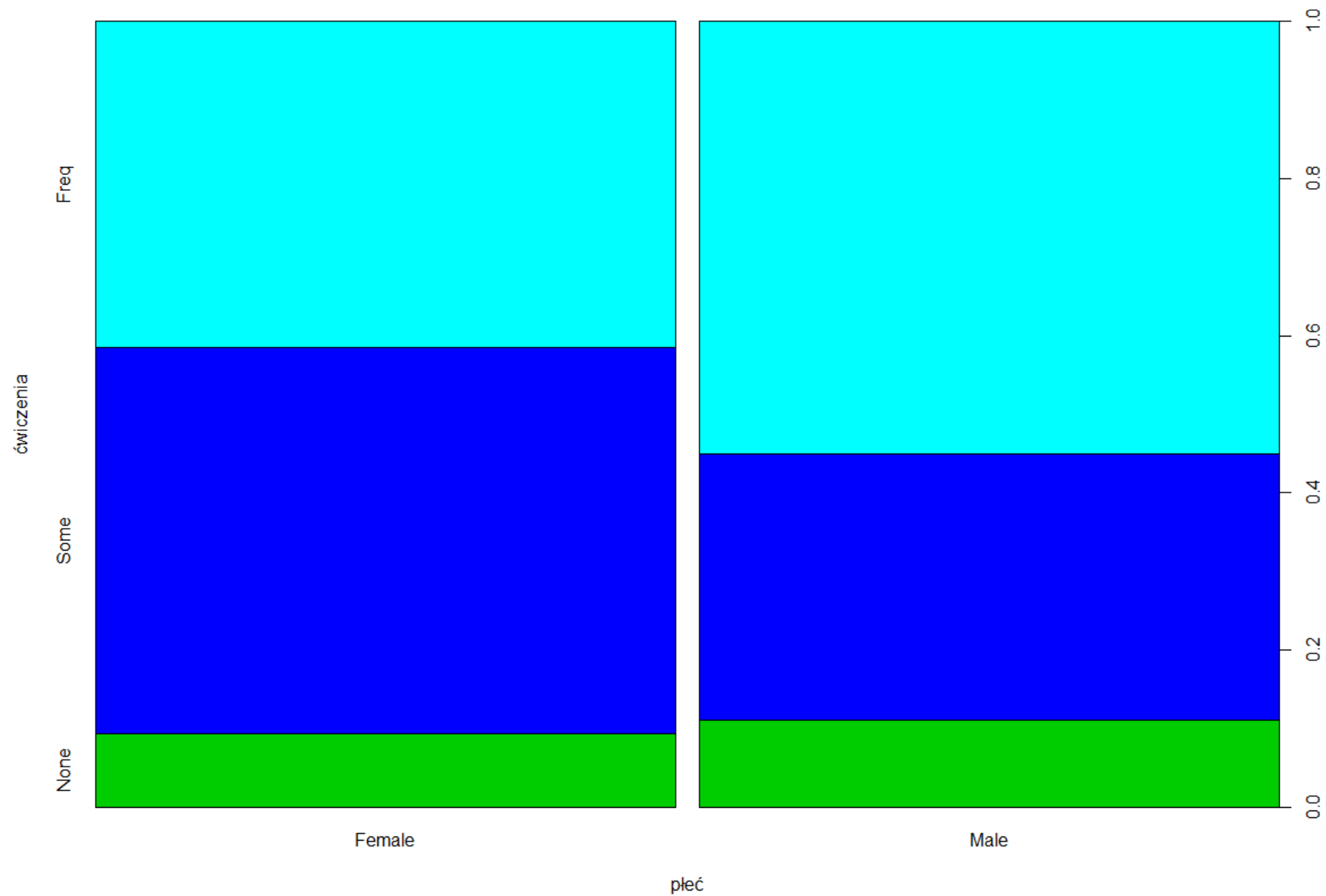
- Pracujemy na danych ze zbioru `survey`, które pochodzą z pakietu `MASS`
- Zatem, należy:
 - Zainstalować pakiet `MASS`
 - Załadować zbiór danych `survey` do pamięci:

```
library(MASS)  
data(survey)
```

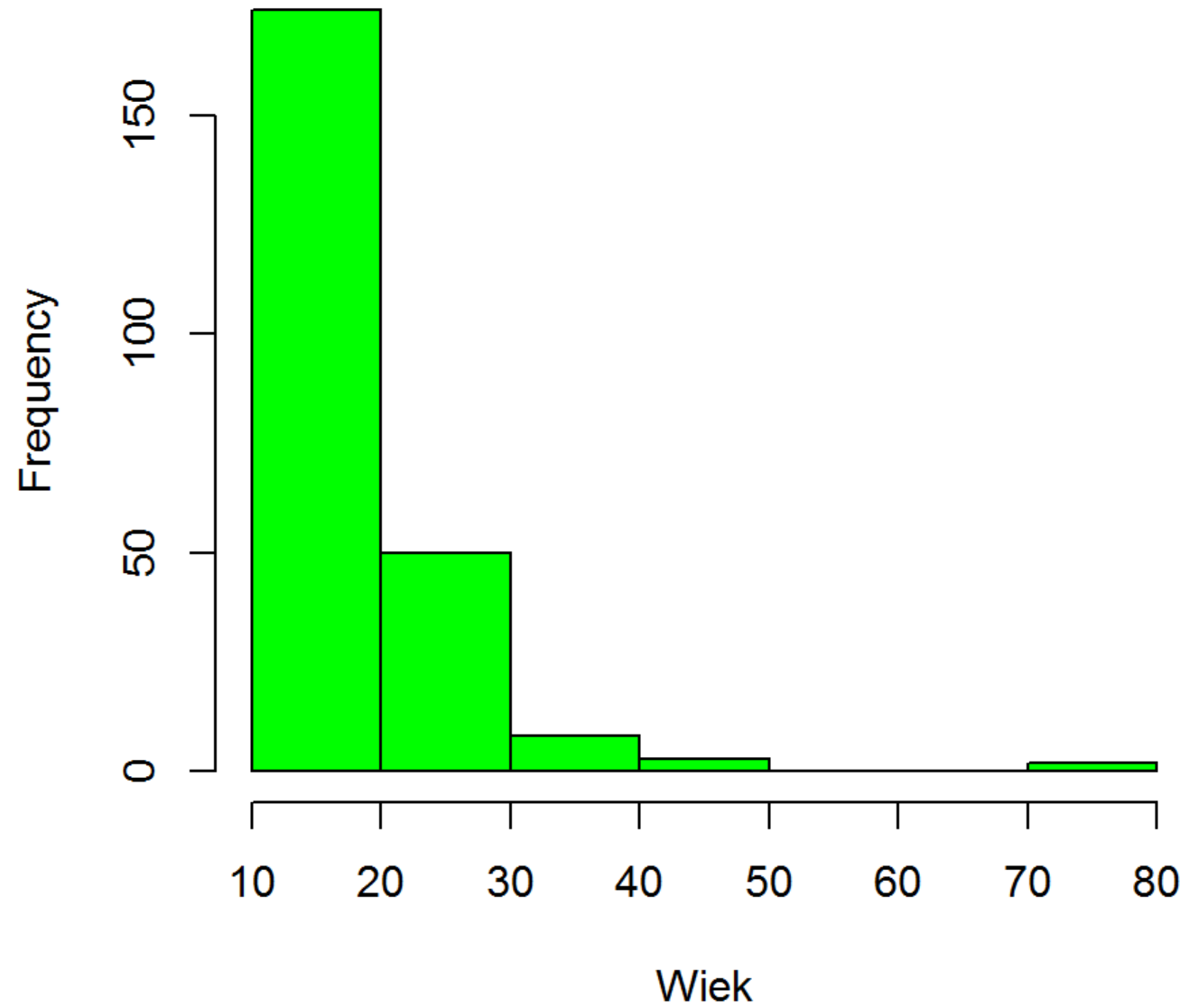
Płeć studenta a wzrost



Płeć studenta a ćwiczenia fizyczne



Wiek studentów



Palenie tytoniu a płeć

