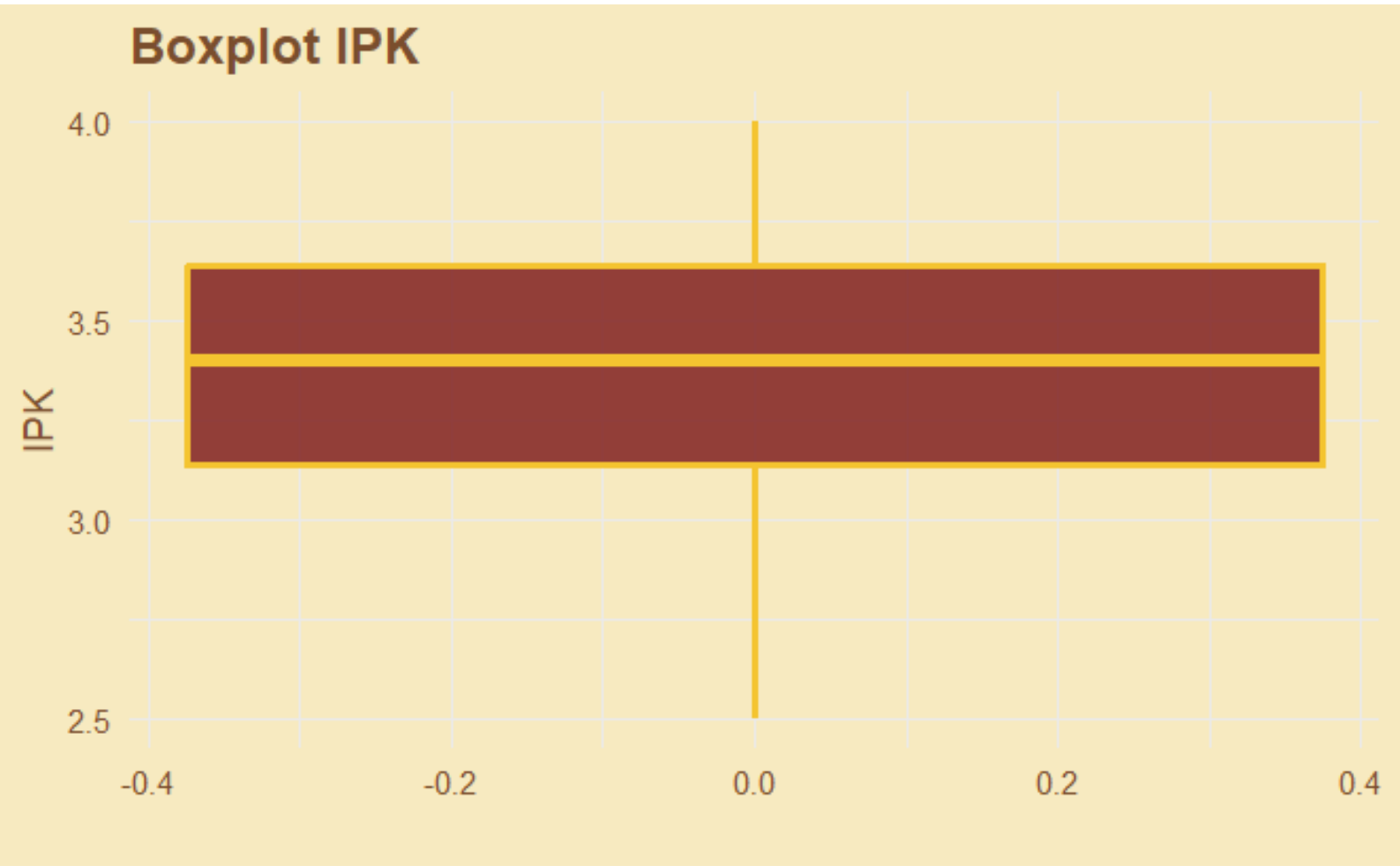
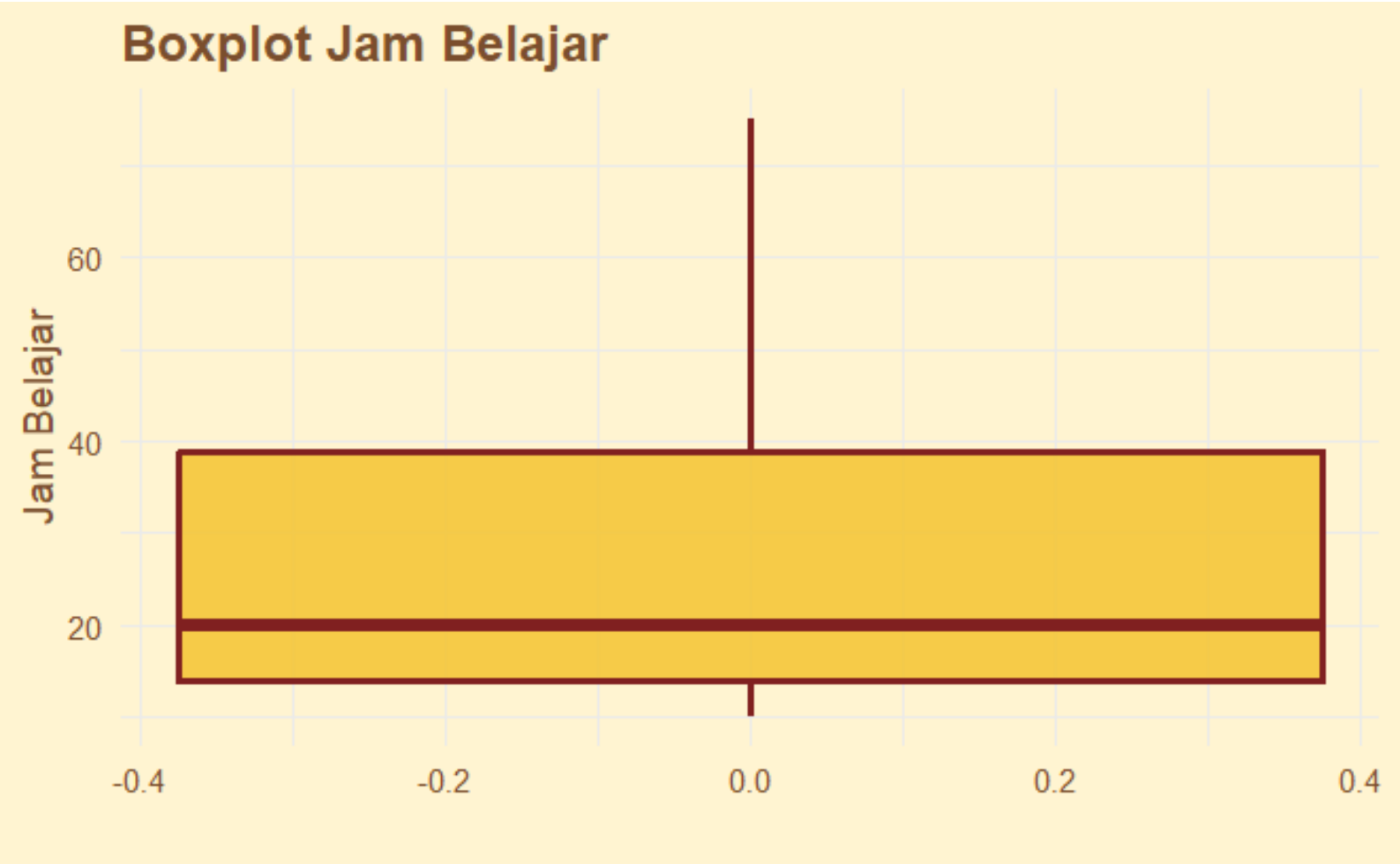
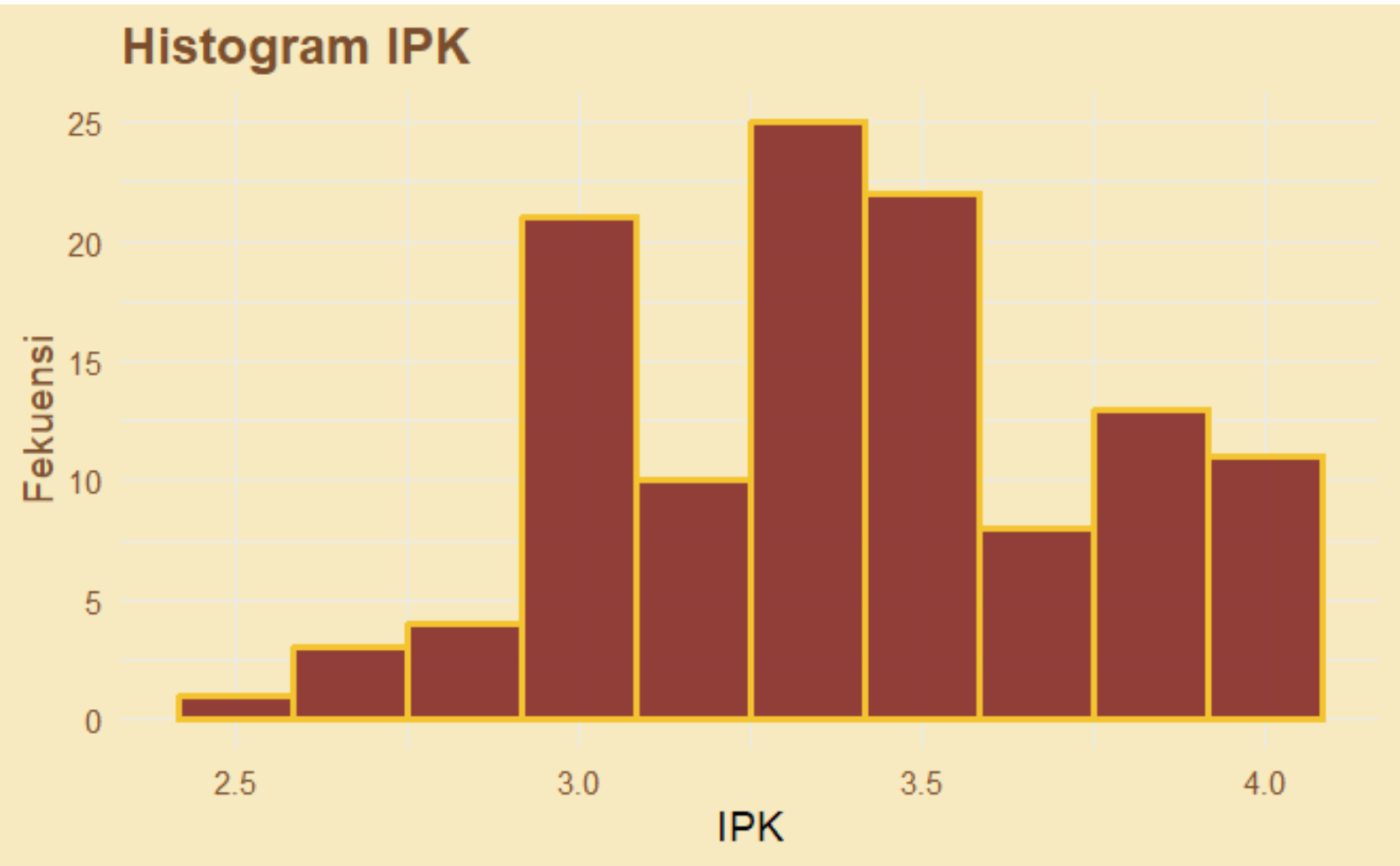

Boxplot IPK
IPK
4.0
3.5
3.0
2.5
-0.4
-0.2
0.0
0.2
0.4

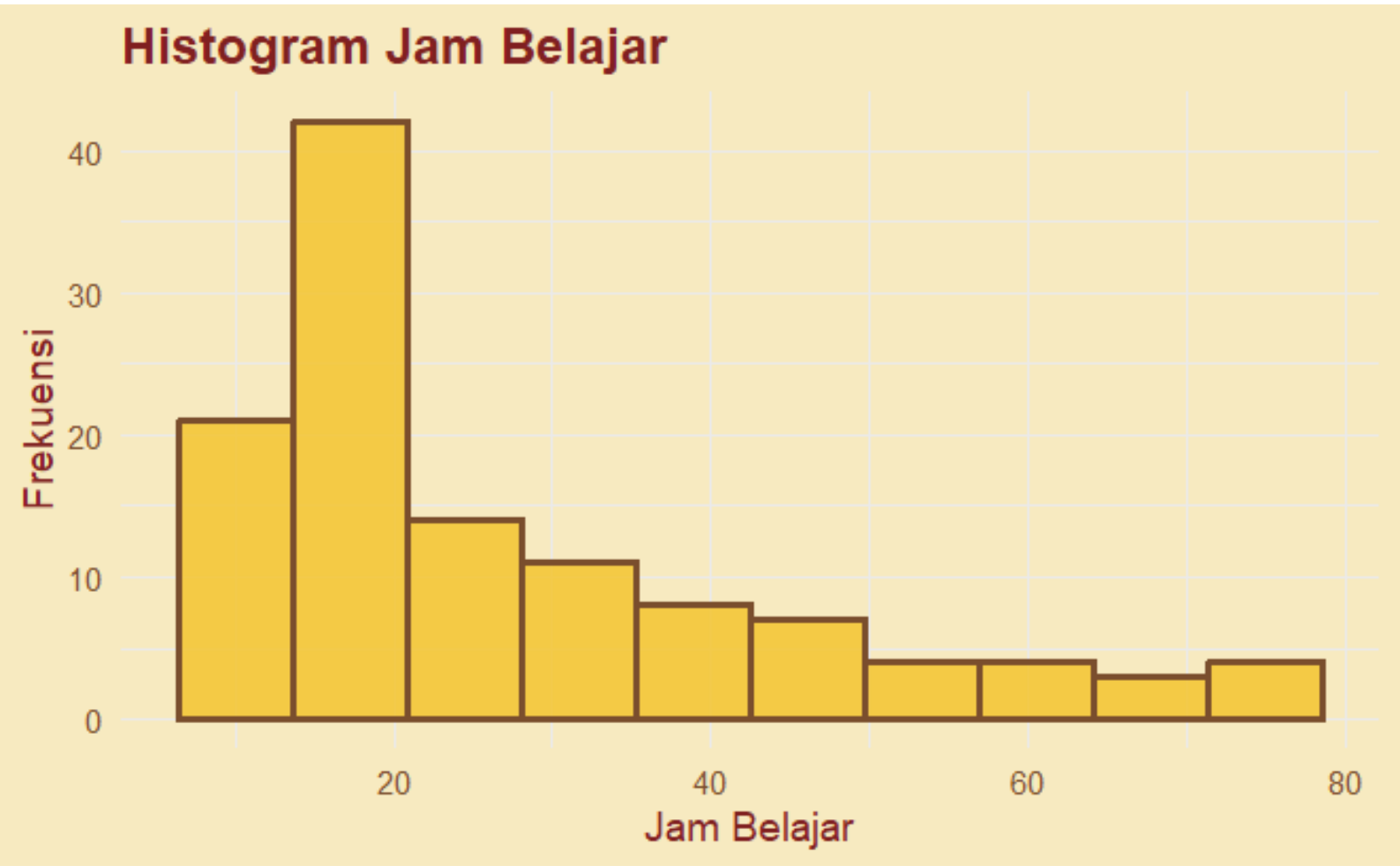

Boxplot Jam Belajar
Jam Belajar
60
40
20
-0.4
-0.2
0.0
0.2
0.4

Deteksi Outlier

```{r}
# IPK
Q1 <- quantile(data$IPK, 0.25)
Q3 <- quantile(data$IPK, 0.75)
IQR <- Q3 - Q1

lower <- Q1 - 1.5 * IQR
upper <- Q3 + 1.5 * IQR

outlier_ipk <- data$IPK[data$IPK < lower | data$IPK > upper]
outlier_ipk

#Jam Belajar
Q1 <- quantile(data$JamBelajar, 0.25)
Q3 <- quantile(data$JamBelajar, 0.75)
IQR <- Q3 - Q1

lower <- Q1 - 1.5 * IQR
upper <- Q3 + 1.5 * IQR

outlier_jam <- data$JamBelajar[data$JamBelajar < lower | data$JamBelajar > upper]
outlier_jam
```

```
numeric(0)
integer(0)
```


Histogram IPK
Fekuensi
25
20
15
10
5
0
2.5
3.0
3.5
4.0
IPK


Histogram Jam Belajar
Frekuensi
0
10
20
30
40
20
40
60
80
Jam Belajar

```r
data <- read.csv("C:/Users/USER/Downloads/Dataset Tugas Besar ADS 2025 - TUBESKEL4
.csv")
head(data)
```

Description: df [6 × 4]

	NIM <int>	ProgramStudi. <chr>	IPKTerakhir. <dbl>	Rata.ratabelaja... <int>
1	1	Matematika	3.80	48
2	2	SainsData	3.40	17
3	3	SainsData	3.97	30
4	4	SainsData	3.06	10
5	5	SainsData	3.15	30
6	6	SainsData	3.43	12

6 rows

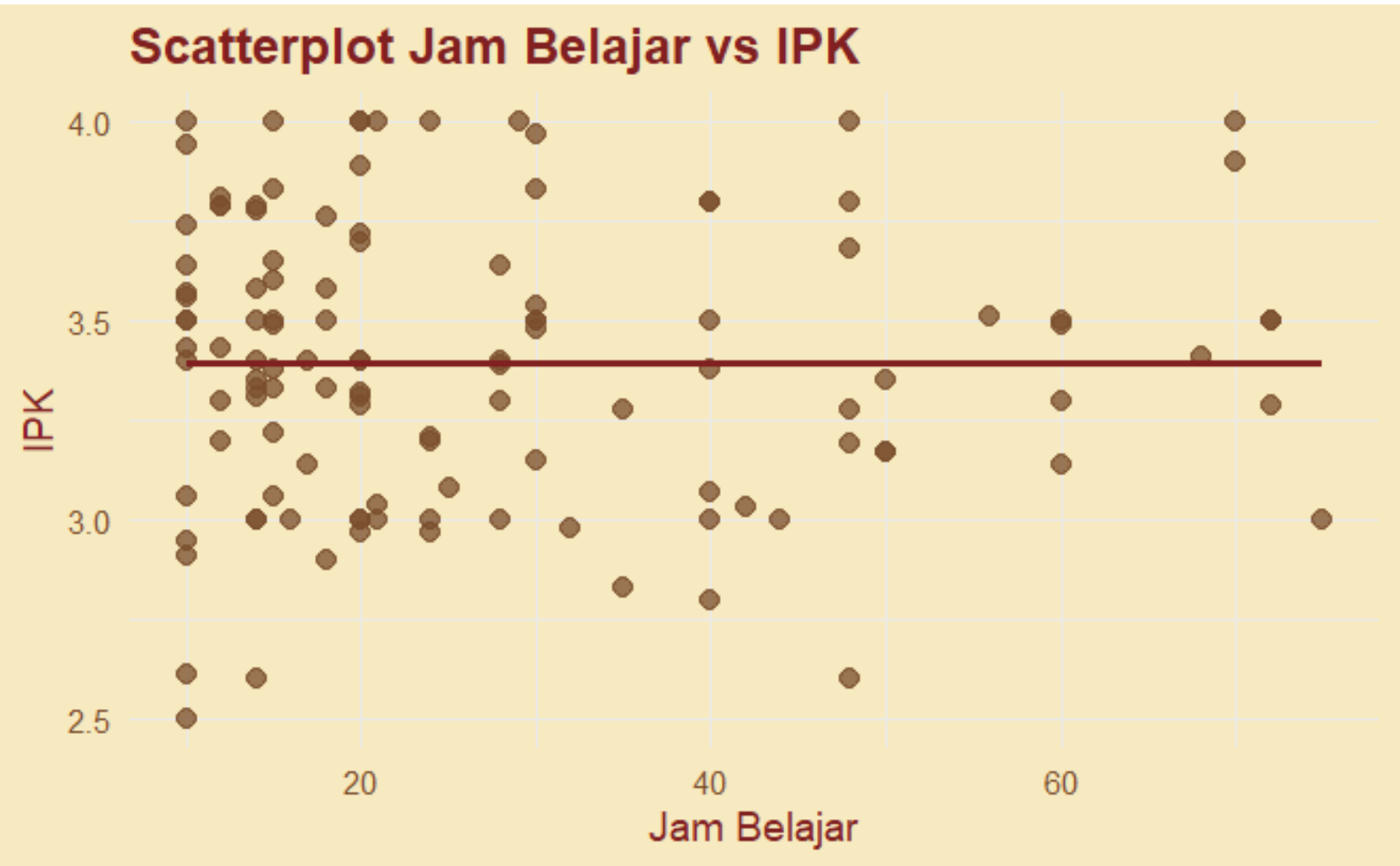
Statistika Deskriptif

```{r}
mean(data$IPK)
median(data$IPK)
sd(data$IPK)
var(data$IPK)
range(data$IPK)
```

```
[1] 3.393136
[1] 3.4
[1] 0.3545545
[1] 0.1257089
[1] 2.5 4.0
```

```{r}
mean(data$JamBelajar)
median(data$JamBelajar)
sd(data$JamBelajar)
var(data$JamBelajar)
range(data$JamBelajar)
```

```
[1] 27.23729
[1] 20
[1] 17.44524
[1] 304.3364
[1] 10 75
```


Scatterplot Jam Belajar vs IPK
4.0
3.5
3.0
2.5
IPK
20
40
60
Jam Belajar

Skewness

```r
library(moments)
#IPK
skewness(data$IPK)
#Jam Belajar
skewness(data$JamBelajar)
```

```
Warning: package 'moments' was built under R version 4.5.2
```

```
[1] -0.1052376
[1] 1.17075
```

StemLeaf

```r
stem(data$IPK)
stem(data$JamBelajar)
```

```
  The decimal point is 1 digit(s) to the left of the |

  25 | 0
  26 | 001
  27 |
  28 | 03
  29 | 015778
  30 | 00000000000346678
  31 | 445779
  32 | 00128899
  33 | 00011233355889
  34 | 000000133899
  35 | 00000000000146788
  36 | 04458
  37 | 02468999
  38 | 0001339
  39 | 047
  40 | 000000000

  The decimal point is 1 digit(s) to the right of the |
```

```
The decimal point is 1 digit(s) to the right of the |

1 | 00000000000000022222244444444444
1 | 555555555567788888
2 | 000000000000011144444
2 | 5888889
3 | 00000002
3 | 55
4 | 000000024
4 | 888888
5 | 000
5 | 6
6 | 0000
6 | 8
7 | 00222
7 | 5
```