

Appendix C

Exploration of “price” variable

The 'price' variable exhibits a right-skewed distribution, as evident from its histogram and density plots. The skewness of 3.156 and a kurtosis of 17.723 indicate a heavy-tailed distribution. The QQ plot and boxplot confirm this skewness, showing an inverted "L" shape and many outliers to the left. A logarithmic transformation could normalize the distribution, making the data more suitable for analysis.

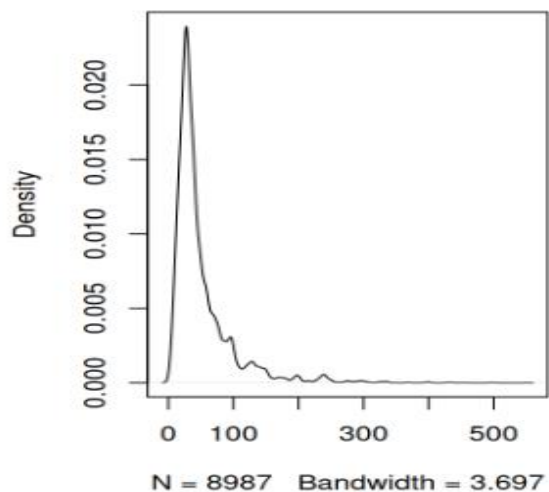
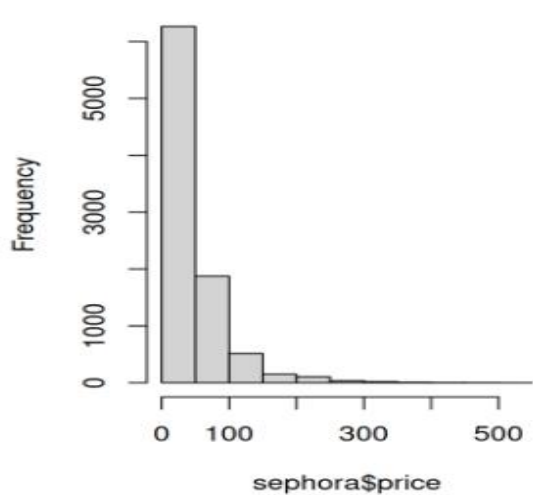
```
```{r}
Skewness and kurtosis
skewness(sephora$price)
kurtosis(sephora$price)
```

Skewness: 3.15      Kurtosis: 17.723
```

Histogram and density for price variable.

```
```{r}
Exploration price variable
Set up the plotting layout
par(mfrow = c(1, 2))

Plot histogram and density
hist(sephora$price)
plot(density(sephora$price))
```
```



QQ and box plots for price variable.

```
```{r}
```

```
QQ plot and boxplot
```

```
qqnorm(sephora$price, main = "QQ Plot for price variable")
```

```
qqline(sephora$price)
```

```
boxplot(sephora$price, horizontal = TRUE)
```

```
```
```

