Q2

1: Price summary

Output 1: Summarised price statistics for Paris and Copenhagen Airbnbs (per night)

```
COPENHAGEN:
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    10.0    60.0    84.0   110.8   121.0 11323.0

################################################################################

PARIS:
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##    10.0    77.0   105.0   118.4   144.0  5620.0
```
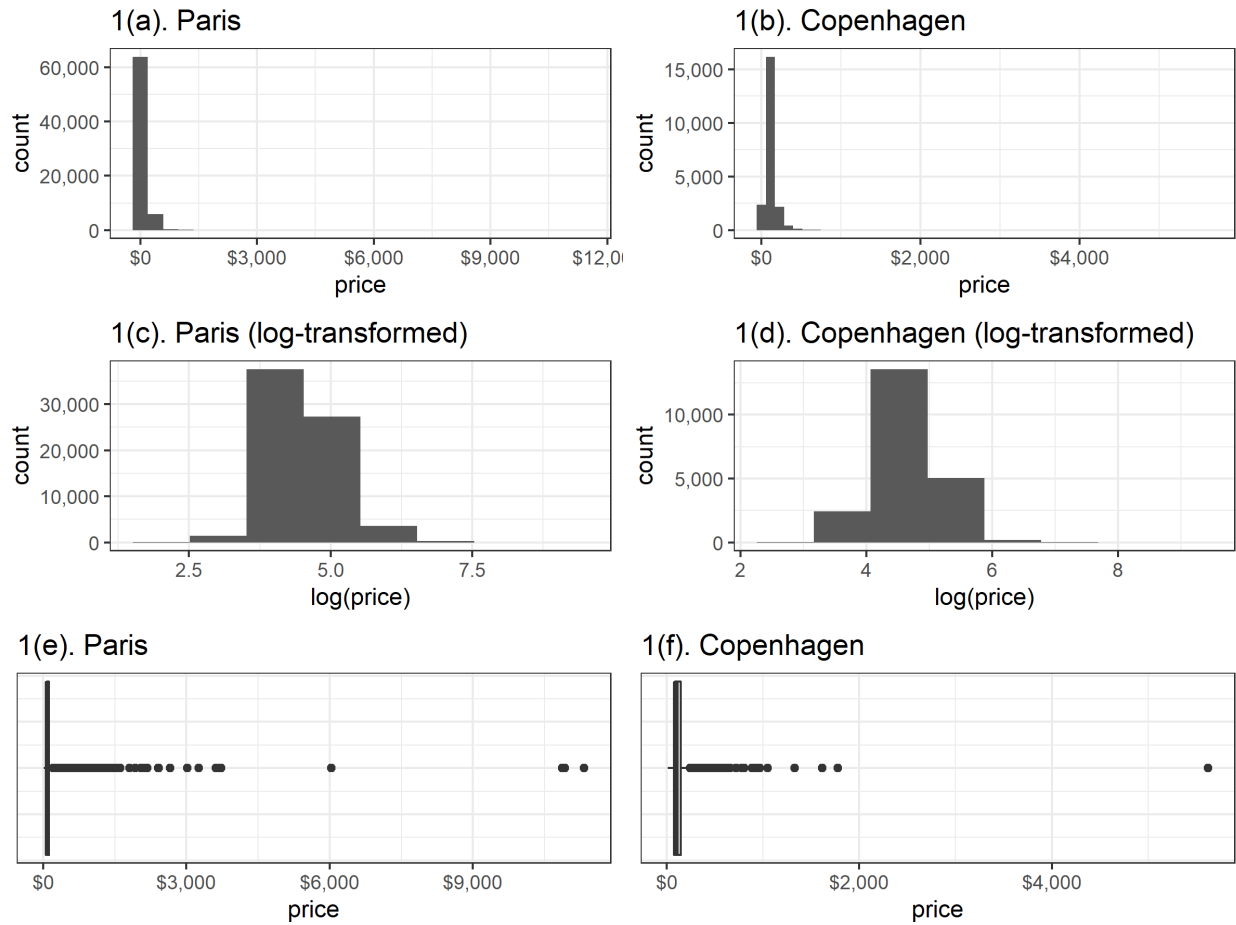
Figure 1: Boxplots and histograms for price data, Paris and Copenhagen

1(a). Paris

1(b). Copenhagen

1(c). Paris (log-transformed)

1(d). Copenhagen (log-transformed)

1(e). Paris

1(f). Copenhagen

Output 2: Two-sample t-test.

```
   NORMAL PRICE VARIABLE

##   Two Sample t-test
##
## data:  ttest$price by ttest$city
## t = 8.1195, df = 91457, p-value = 4.74e-16
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##   5.766361 9.436151
## sample estimates:
## mean in group Copenhagen      mean in group Paris
##                 118.3664                 110.7652

## ###########################################################################
    LOG-TRANSFORMED PRICE VARIABLE:

##   Two Sample t-test
##
## data:  ttest$price2 by ttest$city
## t = 32.913, df = 91457, p-value < 2.2e-16
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##   0.1355903 0.1527617
## sample estimates:
## mean in group Copenhagen      mean in group Paris
##                 4.646323                 4.502147

## ###########################################################################

    NORMAL PRICE VARIABLE

##   Wilcoxon rank sum test with continuity correction
##
## data:  ttest$price by ttest$city
## W = 896935657, p-value < 2.2e-16
## alternative hypothesis: true location shift is not equal to 0
```