Homework 1, Part 2

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R markdown exercise

Sampling from log-normal distribution

1. Sample 100 values from log-normal distribution with mean 1 and variance 0.25.

```
set.seed(560)# for reproducibility
x <- rlnorm(100, 1, .25) #sample size, mean, variance
```

2. Sample mean:

```
mean(x)
```

```
## [1] 2.822187
```

3. Sample variance:

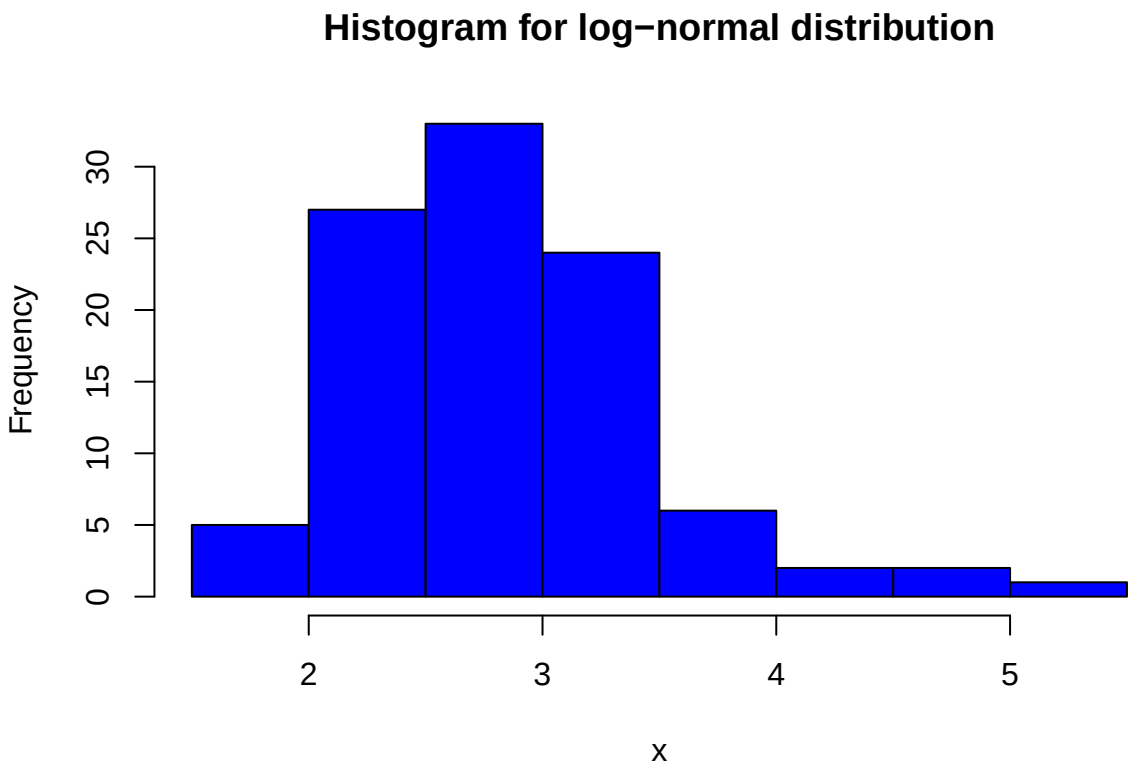
```
var(x)
```

```
## [1] 0.4024206
```

Histogram

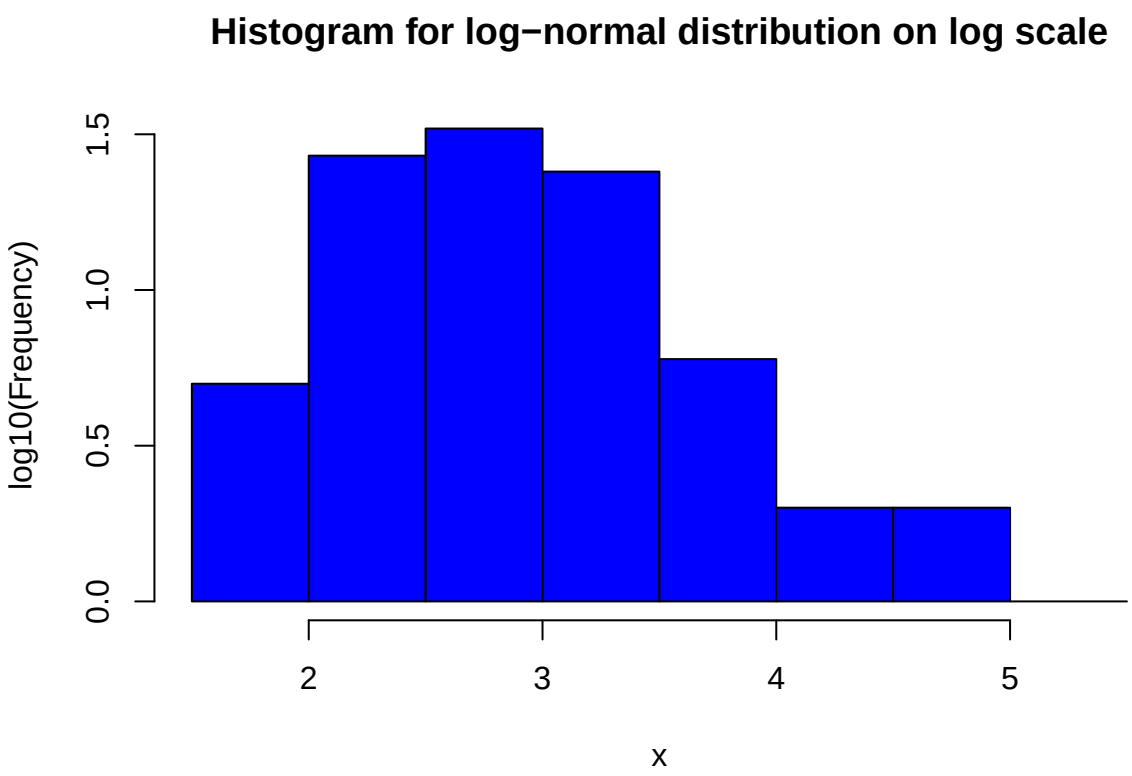
1. Histogram of the distribution:

```
hist(x, main="Histogram for log-normal distribution", col="blue")
```



2. Histogram of the distribution on the log scale:

```
h = hist(x, plot=F)
h$counts = log10(h$counts)
plot(h, main="Histogram for log-normal distribution on log scale", col="blue", ylab='log10(Frequency)')
```



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.