

Part 1: Simulation Exercise Instructions

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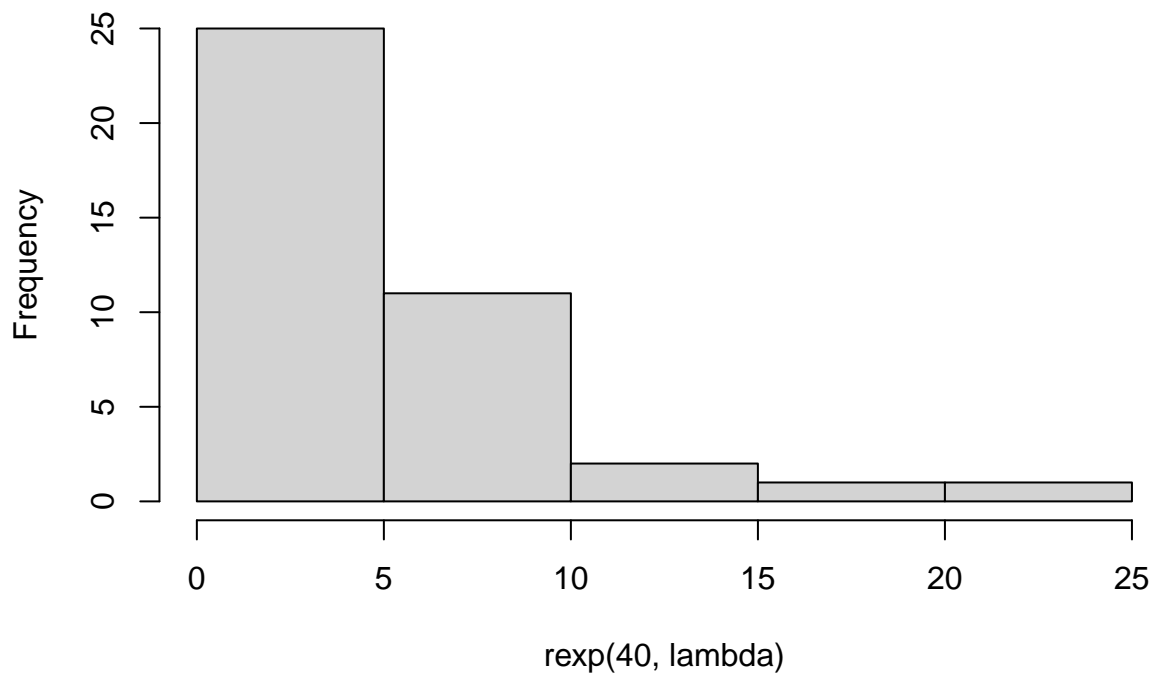
Overview

Simulations

Set the parameter 'lambda'

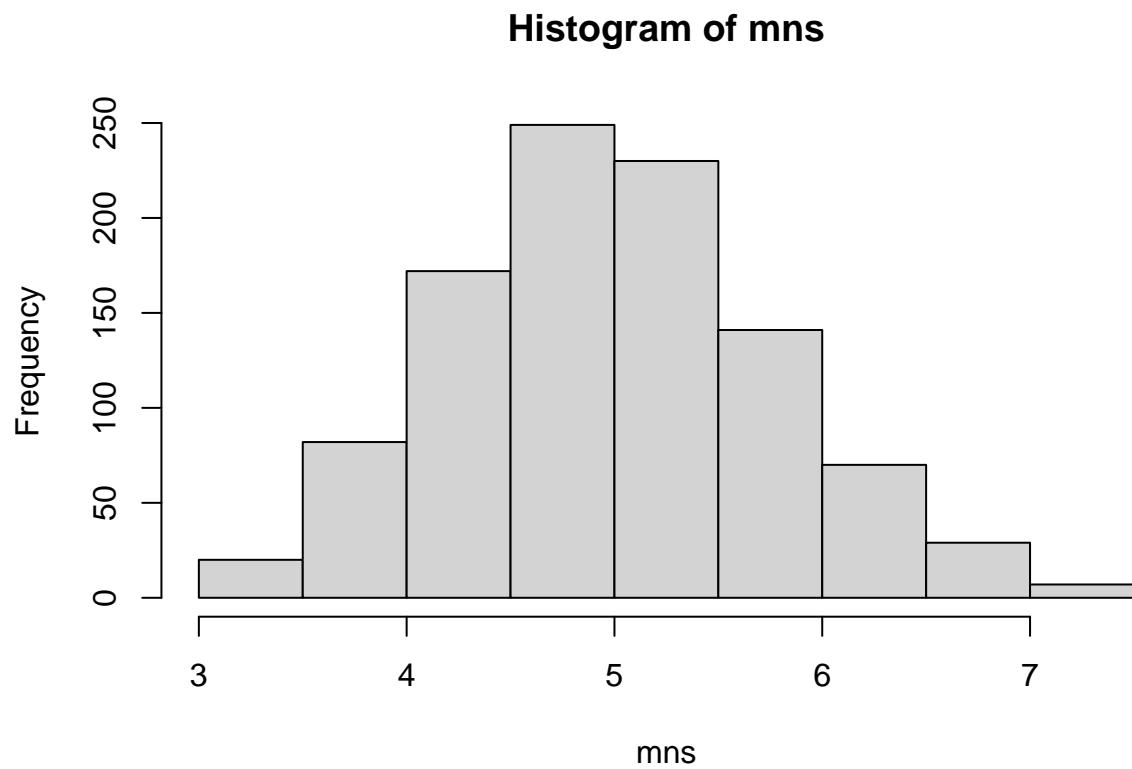
```
set.seed(1)
lambda = 0.2
hist(rexp(40, lambda))
```

Histogram of rexp(40, lambda)



Sample Mean versus Theoretical Mean

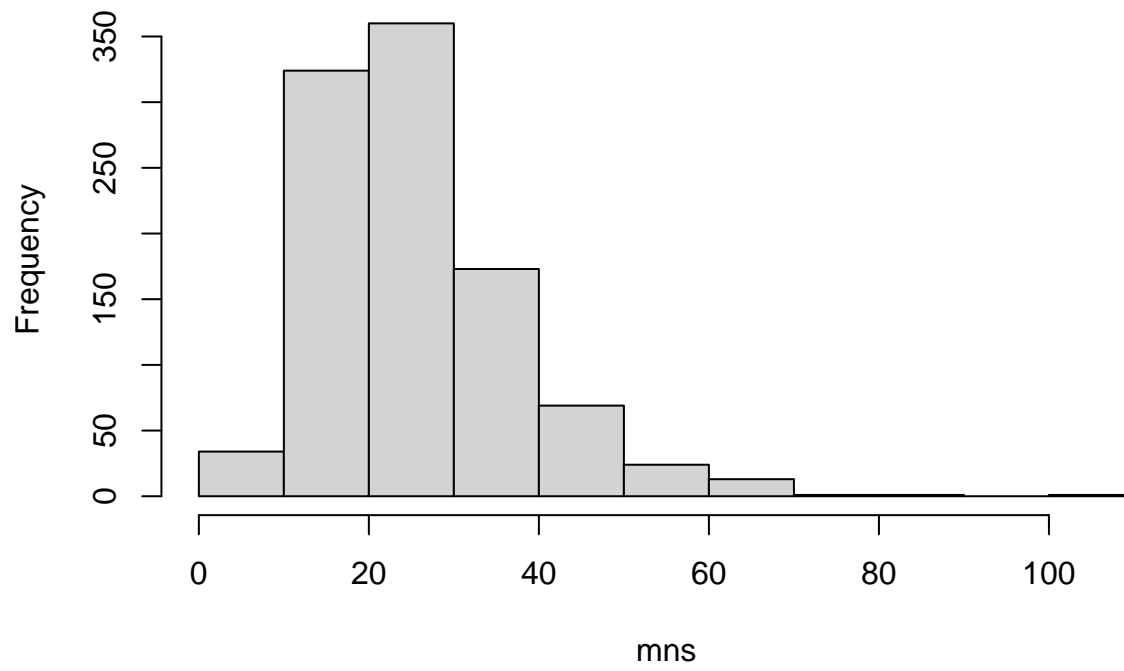
```
mns = NULL
for (i in 1 : 1000) mns = c(mns, mean(rexp(40, lambda)))
hist(mns)
```



Sample Variance versus Theoretical Variance

```
mns = NULL
for (i in 1 : 1000) mns = c(mns, var(rexp(40, lambda)))
hist(mns)
```

Histogram of mns



Distribution