

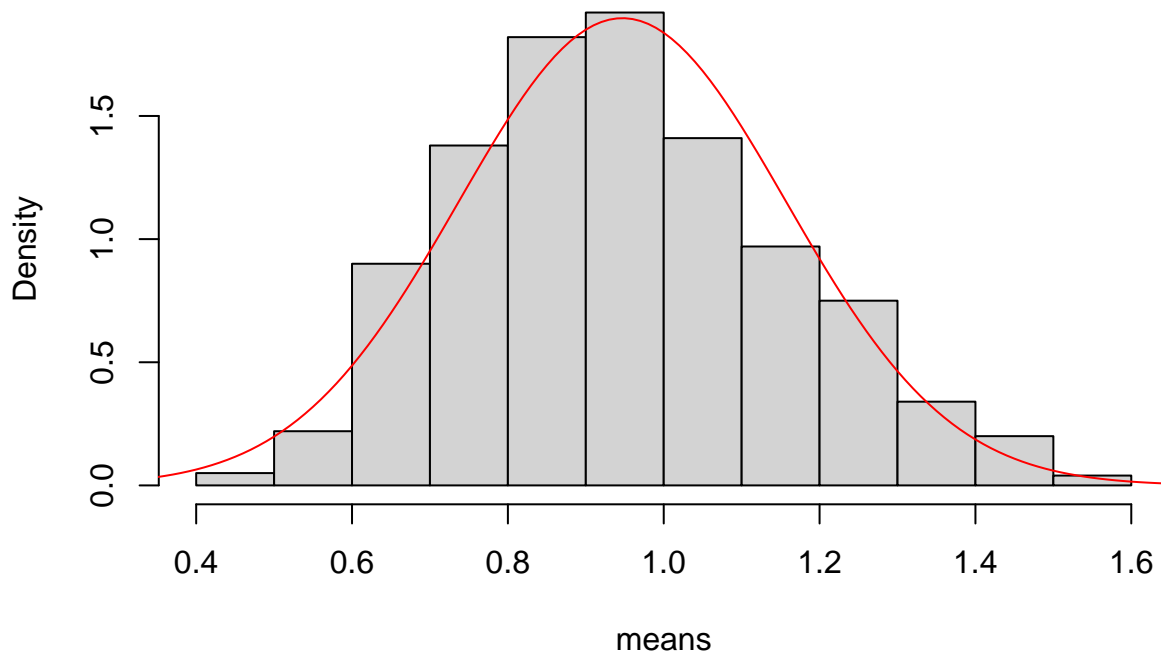
HW1Q1

2023-09-01

```
set.seed(1234567)

s<-1000
n<-21

expo<-rexp(s)
meanArray<-array(0, dim=s)
for(i in 1:s){
  x<-sample(expo,n,replace=FALSE)
  meanArray[i]<-mean(x)
  #print(x)
}
hist(meanArray, main="", xlab="means", freq=FALSE)
lines(seq(0,2,0.01), dnorm(seq(0,2,0.01), mean(meanArray), sd(meanArray)), type='l',
  xlab="Z", ylab='Density', col='red')
```



```
print(mean(meanArray))
```

```
## [1] 0.9469776
```

```
print(sd(meanArray))
```

```
## [1] 0.2102941
```