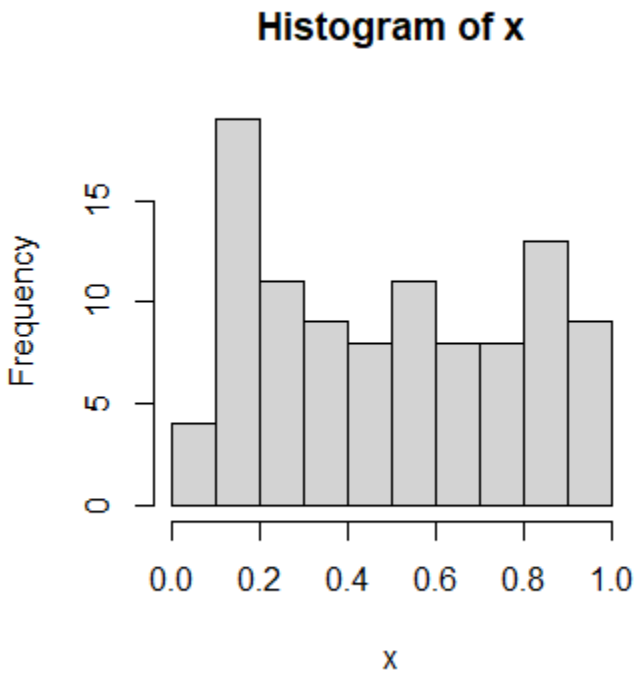
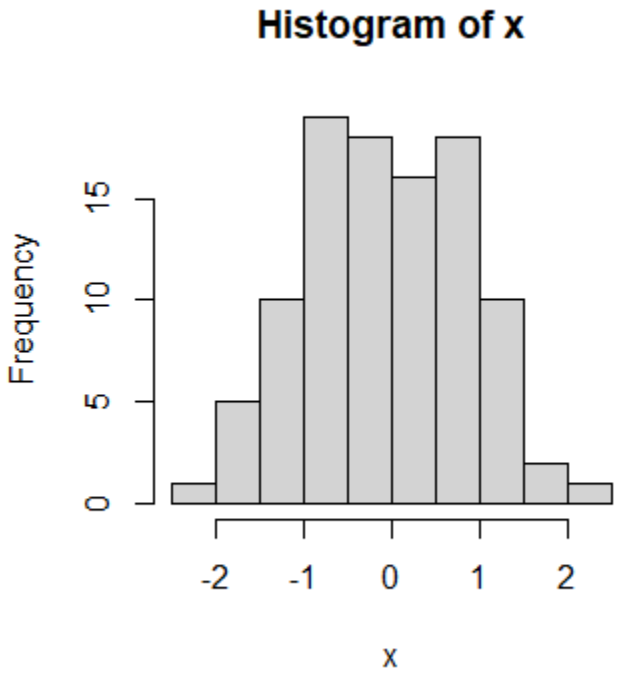
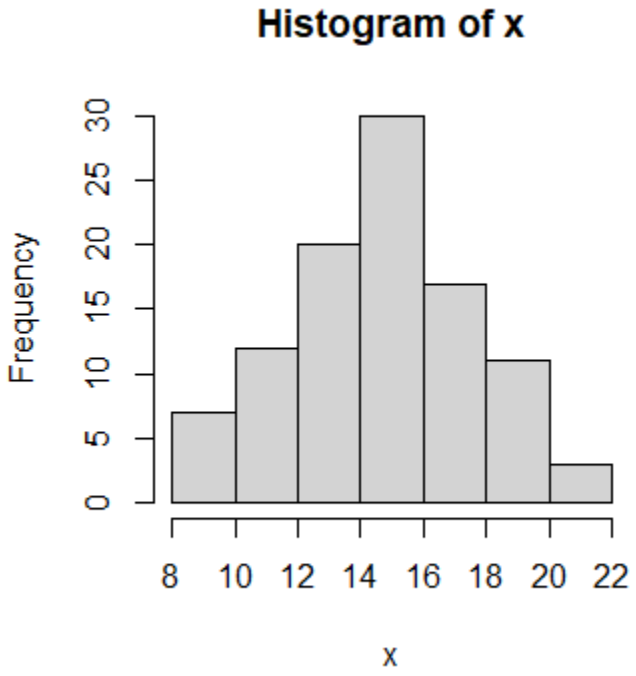
```r
#UNIFORM NUMBERS
#Generate 100 uniform(0,1) random numbers
x<-runif(100)
#Provide a visual summary of the data in x
hist(x)
#Create a normal quantile plot to assess normality
qqnorm(x)
qqline(x)
#Conduct a t.test to check if our random number generator is any good.
t.test(x)
t.test(x, mu=0.5)
#New variable y that doubles the range of simulated values
y=2*x
#New variable z that generates uniform random numbers between -3 and 3
z<-runif(100,-3,3)
```



```r
#NORMAL NUMBERS
#Generate 100 norm(0,1) random numbers
n<-rnorm(100)
#Provide a visual summary of data in x
hist(n)
#The resulting graph is approximately normal and slightly left-skewed.
#Its center is 0. The spread is 4.
qqnorm(n)
qqline(n)
t.test(n)
#As the mean increases, the distribution shifts right.
#As the mean decreases, the distribution shifts left.
#As the standard deviation increases, the graph is more "spread out,"
#or its spread increases.
#As the standard deviation decreases, the graph is more "pointy."
```



```r
#Binomial Numbers
b<-rbinom(100,31,0.9)
hist(b)
#The center is 15. The distribution is approximately normal. The range is 22.
qqnorm(b)
qqline(b)
#As n increases, the distribution is more normal.
#As p increase, the distribution is less normal. There are more outliers.
```



```r
#Geometric Numbers
g<-rgeom(100,1/6)
hist(g)
#The center is approximately 5. The shape is not normal and highly right-skewed.
#The range is 40.
qqnorm(g)
qqline(g)
#The distribution is not approximately normal.
```