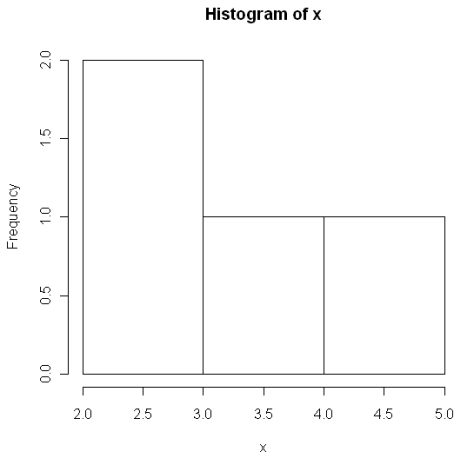
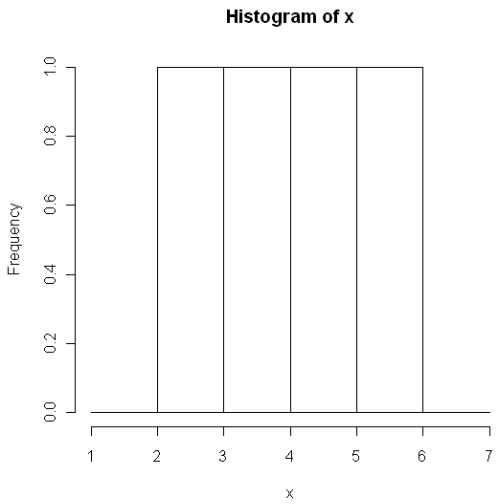
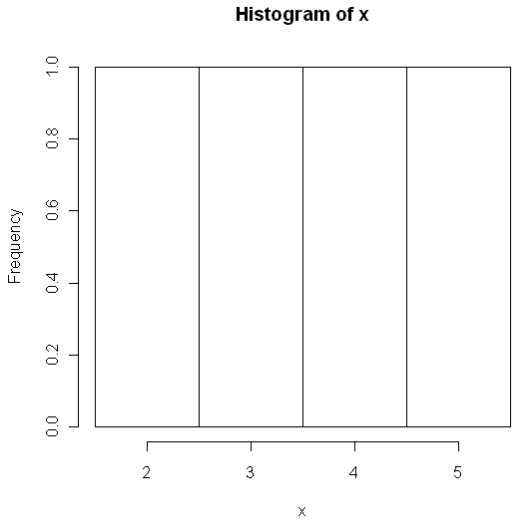
```
> x<-c(5,4,3,2)

> x
[1] 5 4 3 2

> x[3]
[1] 3

> mean(x)
[1] 3.5

> objects()
[1] "x"

> hist(x)
```



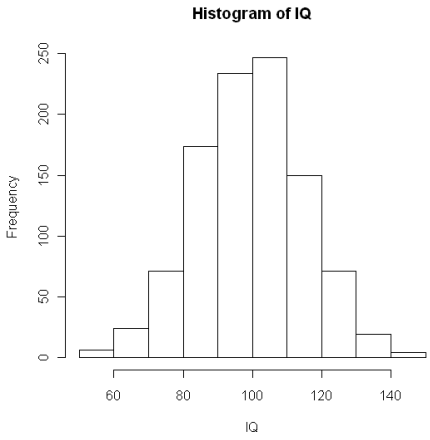

```
> hist(x,breaks=seq(1,7,by=1),right=F)
```



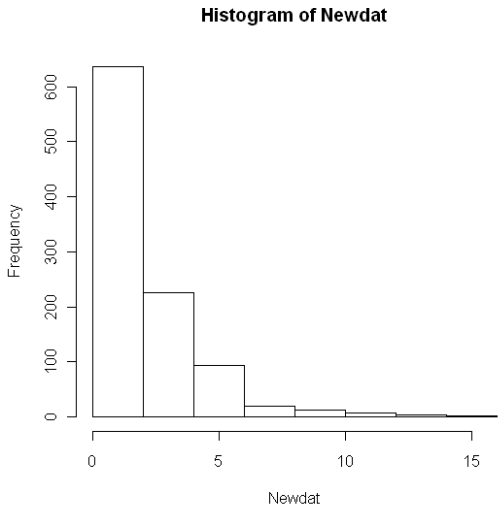
```
> hist(x,breaks=seq(1.5,5.5,by=1),right=F)
```




```
> IQ<-rnorm(1000,mean=100,sd=15)

#Your IQ data will be different… it's random!

> IQ
   [1]  92.54930 109.00239 114.26507 111.56788 120.50596 101.49169  93.33797
   [8] 106.68486 103.29820  87.87807  98.88745  89.69167 106.86317  95.07249
  [15]  90.33915  72.04239 103.11390 103.14250  93.48920 101.01570 112.66078
  [22] 123.31403 115.87322 106.06672 128.56956 132.38757 107.87137  90.91416
  [29] 111.21351  93.83098  95.20348 107.37933  89.93266  83.32965 105.06509
  [36] 113.25578  96.01688  94.78101  80.30823  91.87008 117.00475 111.62780
  [43]  97.72024 100.72449 121.03014  95.47689 120.03272 108.20534  96.13074
  [50]  80.66576  96.62094 113.30949  58.77169  95.37441  99.38172  85.97327
  <SNIP!>

> mean(IQ)
[1] 99.49724

> sd(IQ)
[1] 15.40931

> hist(IQ,right=F)
```

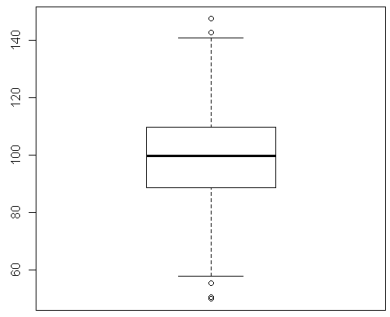


```
> sum((IQ>=85)&(IQ<115))/1000
[1] 0.672

> sum((IQ>=70)&(IQ<130))/1000
[1] 0.947

> sum((IQ>=45)&(IQ<145))/1000
[1] 0.999


> Newdat<-rchisq(1000,df=2)

> hist(Newdat)
```




```
> mean(Newdat)
[1] 2.014024

> median(Newdat)
[1] 1.403271



> sum((Newdat>=mean(Newdat)-sd(Newdat))&(Newdat<
mean(Newdat)+sd(Newdat)))/1000
[1] 0.871

> sum((Newdat>=mean(Newdat)-2*sd(Newdat))&(Newdat<
mean(Newdat)+2*sd(Newdat)))/1000
[1] 0.959

> sum((Newdat>=mean(Newdat)-3*sd(Newdat))&(Newdat<
mean(Newdat)+3*sd(Newdat)))/1000
[1] 0.978
```

```
> quantile(IQ,.5)
    50%
99.6703

> quantile(IQ,.25)
     25%
88.69938

> quantile(IQ,.75)
     75%
109.8509

> IQR<-function(datavector){
+ Q3<-summary(datavector)[5]
+ Q1<-summary(datavector)[2]
+ as.numeric(Q3-Q1)}

> IQR(IQ)
[1] 21.2

> summary(IQ)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  50.12   88.70   99.67   99.50  109.90  147.60

> boxplot(IQ)
```




```
> boxplot(Newdat)
```