CSI_R_1.R

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```
#Question 1
#Character vector
comp_names=c("Hewlett-Packard","IBM","Google","Amazon")
#Numeric vector
num_shares=c(1000,350,250,500)
#Numeric vector
cprice=c(20.00,150.00,1250.00,1600.00)
#total value
tvalue=(num_shares*cprice)
#sum of values added together to get over all price
market_value=sum(tvalue)
#Print statement of market value
print(market_value)
```

```
## [1] 1185000
```

```
#Shares after selling
num_shares2=c(1000-50,350-20,250,500)
#New overall price after shares sold
tvalue2=(num_shares2*cprice)
#sums added up to express the total market value
market_value2=sum(tvalue2)
#print statment of new market value
print(market_value2)
```

```
## [1] 1181000
```

```
#New Closing price after 6.25% increase
new_cprice=cprice*.0625
#New total value
tvalue3=num_shares*new_cprice
#New overall portfolio cost, sums added up
market_value3=sum(tvalue3)
#Print statements
print(market_value3)
```

```
## [1] 74062.5
```

```r
#Question 2
#Matrix A
A=matrix(nrow=2,ncol=2, data=c(400/7,1,-100/3,1),byrow=TRUE)
#Matrix B
B=matrix(nrow=2,ncol=1,data=c(400,0))
#Matrix A and B shown
A
```

```
##           [,1] [,2]
## [1,]  57.14286    1
## [2,] -33.33333    1
```

```r
B
```

```
##      [,1]
## [1,]  400
## [2,]    0
```

```r
#Solve(A) computes the inverse of the matrix
solve(A)
```

```
##            [,1]        [,2]
## [1,] 0.01105263 -0.01105263
## [2,] 0.36842105  0.63157895
```

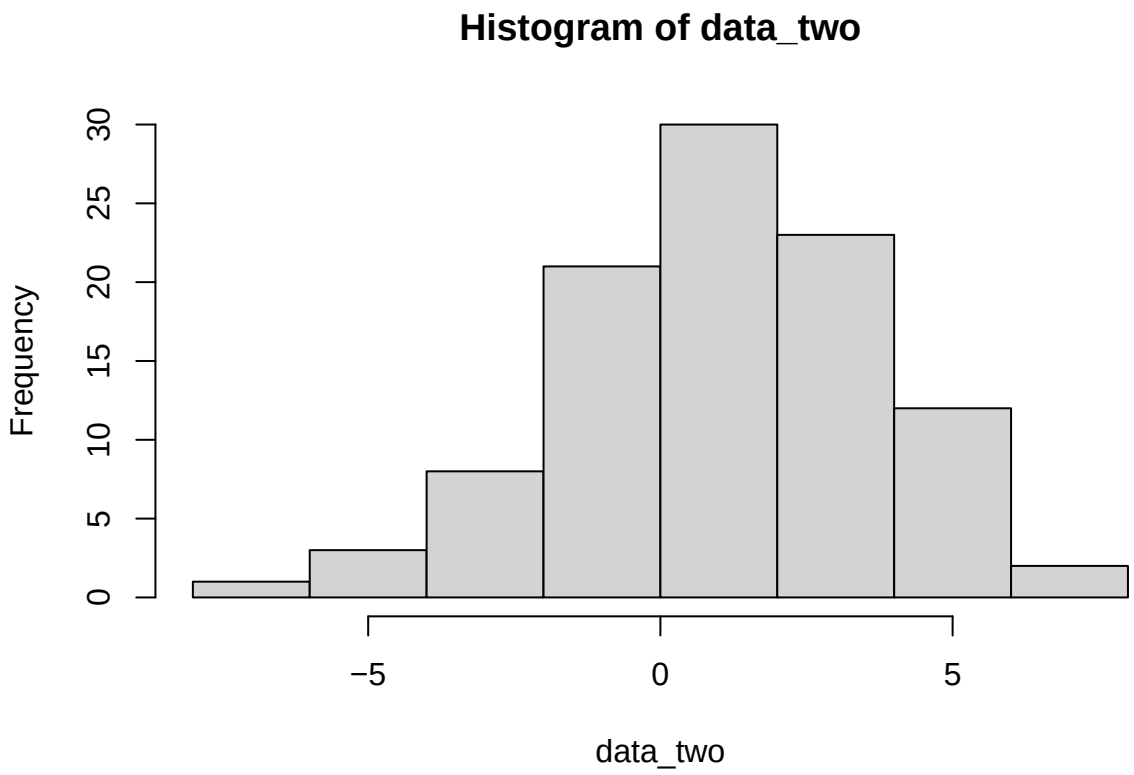
```r
#Computes the solutions
x=solve(A,B)
x
```

```
##            [,1]
## [1,]   4.421053
## [2,] 147.368421
```

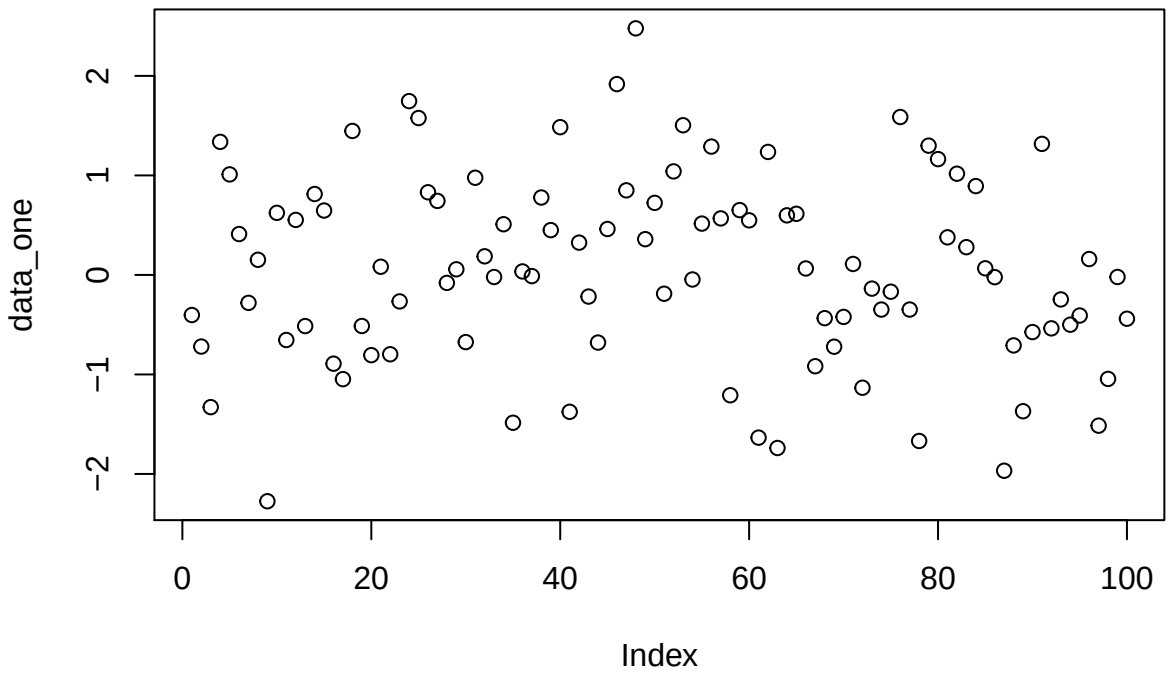
```r
#Question 3
data_one=rnorm( 100, mean=0.0, sd=1.0)
stem(data_one)
```

```
##
##   The decimal point is at the |
##
##   -2 | 30
##   -1 | 77655
##   -1 | 4432100
##   -0 | 998877777765555
##   -0 | 44444333322221100000
##    0 | 01111122233444
##    0 | 5555566666677788899
##    1 | 00002233334
##    1 | 556679
##    2 |
##    2 | 5
```

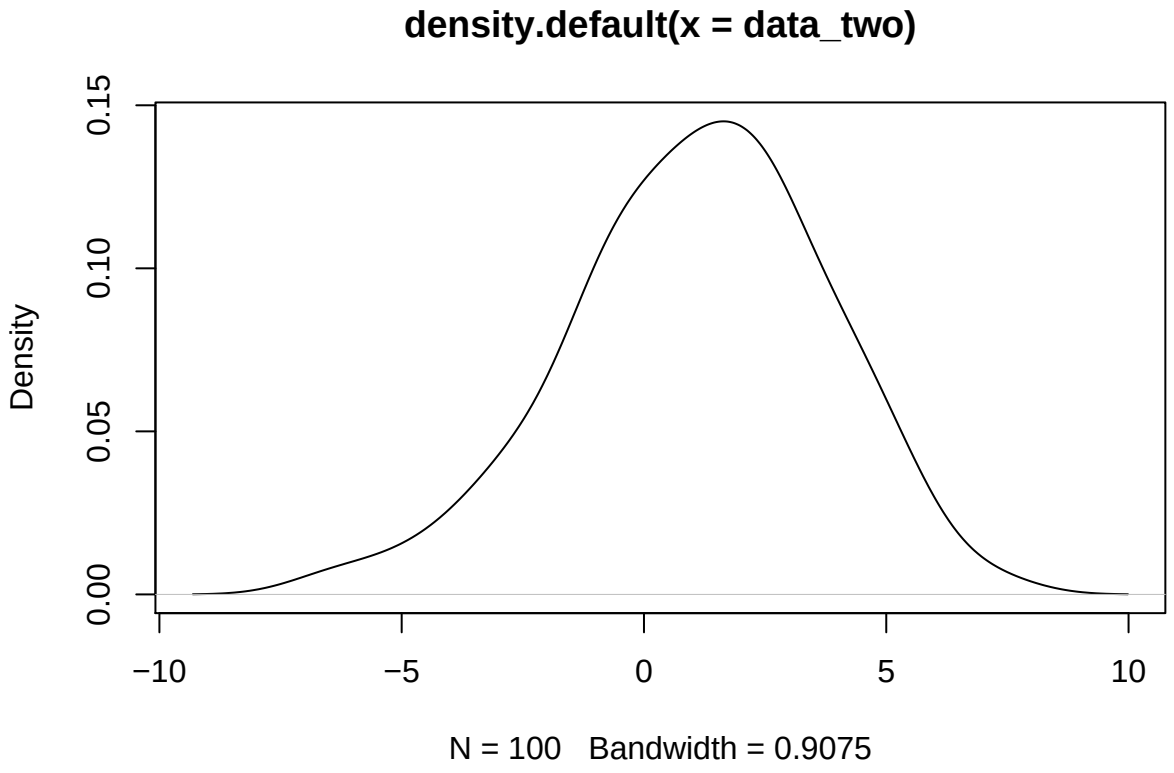
```r
data_two=rnorm( 100, mean=0.8, sd=2.5)
hist(data_two)
```



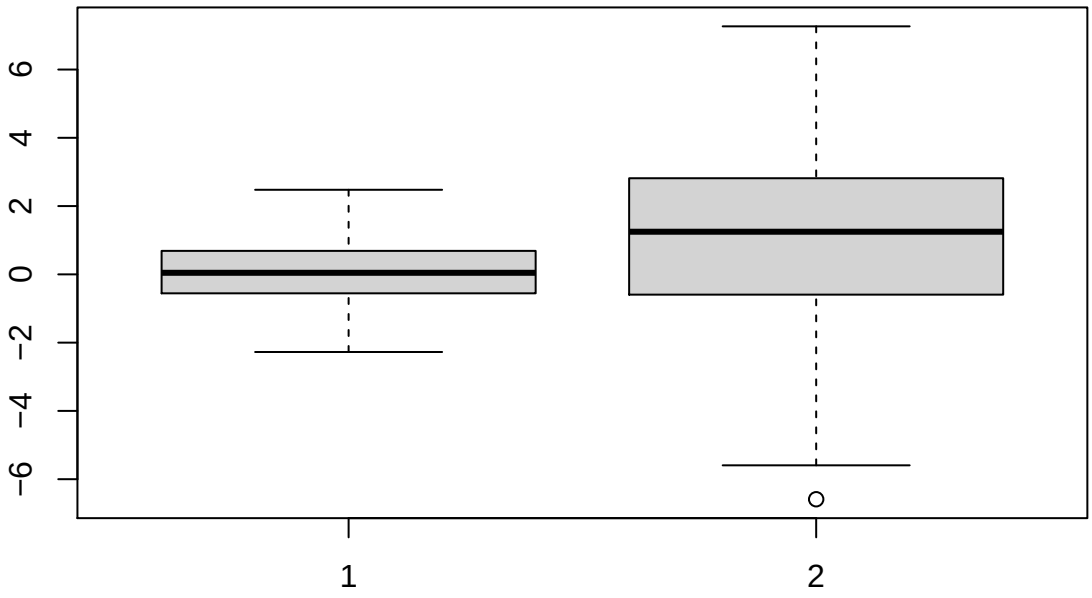

```r
plot(data_one)
```




```
plot(density(data_two))
```




```
boxplot(data_one,data_two)
```


6
4
2
0
−2
−4
−6
1
2