```r
1
x<-c(10,20,30,40,50,60,60,70,80,90,100)
cat("Data set:",x)
cat("Mean: ",mean(x))
cat("Median: ",median(x))
cat('\n\n')
data<-table(x)
print(data)
print(names(data))
calculate_mode <- function(x) {
  ux <- unique(x)
  ux[which.max(tabulate(match(x, ux)))]
}
mode <- calculate_mode(x)
cat('Mode',mode)
cat('\n\n')
Q1<-quantile(x,0.25)
Q2<-quantile(x,0.50)
Q3<-quantile(x,0.75)
cat('\nInter Qaurtile Range',IQR(x))
cat('mean deviation',mad(x))
cat('standard deviation ', sd(x))
cat('variance',var(x))
2

A<-c(20,25,30,35,40,44,55,67,87,70)
BP<-c(125,130,123,150,145,170,168,178,168,170)
print(A)
print(BP)
```

```
cor(A,BP)

plot(A,BP)

r<-lm(BP~A)

print(r)

abline(r)

attributes(r)

r$coefficient[1]

r$coefficient[2]


3

A=matrix(c(4,5,7,3,1,2,1,1,1),nrow=3,ncol=3,byrow=TRUE)

print(A)

det(A)

solve(A)

t(A)

4

Year<-c(2000,2001,2002,2003,2004)

Rate<-c(9.34,8.50,7.62,6.93,6.60)

cor(Year,Rate)

plot(Year,Rate)

r<-lm(Rate~Year)

print(r)

attributes(r)

summary(r)

r$coefficient[1]

residuals(r)

abline(r)

5
```

```r
A <- list(c("jan","feb","mar"), matrix(c(1, 2, 3, 4,6,5), nrow = 2, ncol = 3), TRUE, list("RED"))

print(A)
```