Question 1

```
    could not find function "load.package"
> data()
> data<-data("rock")
> data
[1] "rock"
> data<-rock
```

```
> summary(area)
Error: object 'area' not found
> summary("area")
   Length     Class      Mode
        1 character character
> summary(data$area)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   1016    5305    7487    7188    8870   12212
> summary(data$peri)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
  308.6  1414.9  2536.2  2682.2  3989.5  4864.2
> summary(data$shape)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
0.09033 0.16226 0.19886 0.21811 0.26267 0.46413
> summary(data$perm)
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   6.30   76.45  130.50  415.45  777.50 1300.00
```

```
> confident_area<-t.test(data$area,con.level=0.95)$conf.int
> confident_area
[1] 6408.421 7967.038
attr(,"conf.level")
[1] 0.95
> test<-t.test(data$area,mu=7000,alternative="greater")
> test

        One Sample t-test

data:  data$area
t = 0.48461, df = 47, p-value = 0.3151
alternative hypothesis: true mean is greater than 7000
95 percent confidence interval:
 6537.734      Inf
sample estimates:
mean of x
 7187.729
```

Question 2

```
> #q 2
> observation<-data.frame(
+ Id=101:200,gender=sample(c("MALE","FEMALE"),100,replace=TRUE,prob=c(1,3)),frequency=sample(c("First time","Once a week","Once a month"),100,replace=TRUE,prob=c(1,1,2)),satisf3
> observation
    Id gender    frequency satisfaction_level
1  101 FEMALE   First time           Positive
2  102 FEMALE Once a month           Positive
3  103   MALE   First time            Neutral
4  104 FEMALE   First time           Positive
5  105 FEMALE Once a month           Negative
6  106   MALE Once a month            Neutral
7  107   MALE  Once a week           Positive
8  108 FEMALE   First time           Positive
9  109 FEMALE Once a month           Positive
10 110 FEMALE Once a month           Negative
11 111 FEMALE Once a month            Neutral
12 112 FEMALE   First time            Neutral
13 113   MALE Once a month           Negative
14 114 FEMALE  Once a week           Negative
15 115   MALE Once a month            Neutral
16 116 FEMALE Once a month            Neutral
17 117 FEMALE   First time           Positive
18 118 FEMALE Once a month            Neutral
19 119 FEMALE   First time            Neutral
```

```
> head(observation)
    Id gender    frequency satisfaction_level
1 101 FEMALE   First time           Positive
2 102 FEMALE Once a month           Positive
3 103   MALE   First time            Neutral
4 104 FEMALE   First time           Positive
5 105 FEMALE Once a month           Negative
6 106   MALE Once a month            Neutral
> tail(observation)
     Id gender    frequency satisfaction_level
95  195 FEMALE Once a month           Negative
96  196 FEMALE  Once a week           Positive
97  197 FEMALE   First time           Positive
98  198 FEMALE Once a month           Negative
99  199 FEMALE  Once a week            Neutral
100 200 FEMALE  Once a week           Negative
> summary(observation$gender)
  Length     Class      Mode
     100 character character
> |
```