#1.

```
Shoesize <- c(6.5, 9.0, 8.5, 8.5, 10.5, 7.0, 9.5, 9.0, 13.0, 7.5, 10.5, 8.5, 12.0, 10.5, 13.0, 11.5, 8.5
Height <- c(66.0, 68.0, 64.0, 65.0, 70.0, 64.0, 70.0, 71.0, 72.0, 64.0, 74.0, 67.0, 71.0, 71.0, 77.0, 72
Gender <- c("F", "F", "F", "F", "M", "F", "F", "F", "M", "F", "M", "F", "M", "M", "M", "M", "F", "F", "M
```

```
HouseholdData <- data.frame(Shoesize, Height, Gender)
HouseholdData
```

```
##    Shoesize Height Gender
## 1       6.5     66      F
## 2       9.0     68      F
## 3       8.5     64      F
## 4       8.5     65      F
## 5      10.5     70      M
## 6       7.0     64      F
## 7       9.5     70      F
## 8       9.0     71      F
## 9      13.0     72      M
## 10      7.5     64      F
## 11     10.5     74      M
## 12      8.5     67      F
## 13     12.0     71      M
## 14     10.5     71      M
## 15     13.0     77      M
## 16     11.5     72      M
## 17      8.5     59      F
## 18      5.0     62      F
## 19     10.0     72      M
## 20      6.5     66      F
## 21      7.5     64      F
## 22      8.5     67      M
## 23     10.5     73      M
## 24      8.5     69      F
## 25     10.5     72      M
## 26     11.0     70      M
## 27      9.0     69      M
## 28     13.0     70      M
```

```
SSMale <- subset(HouseholdData, Gender=="M")
SSMale
```

```
##    Shoesize Height Gender
## 5      10.5     70      M
## 9      13.0     72      M
## 11     10.5     74      M
## 13     12.0     71      M
## 14     10.5     71      M
## 15     13.0     77      M
## 16     11.5     72      M
## 19     10.0     72      M
## 22      8.5     67      M
## 23     10.5     73      M
```

```
## 25     10.5     72      M
## 26     11.0     70      M
## 27      9.0     69      M
## 28     13.0     70      M
```

```
SSFemale <- subset(HouseholdData, Gender=="F")
SSFemale
```

```
##    Shoesize Height Gender
## 1       6.5     66      F
## 2       9.0     68      F
## 3       8.5     64      F
## 4       8.5     65      F
## 6       7.0     64      F
## 7       9.5     70      F
## 8       9.0     71      F
## 10      7.5     64      F
## 12      8.5     67      F
## 17      8.5     59      F
## 18      5.0     62      F
## 20      6.5     66      F
## 21      7.5     64      F
## 24      8.5     69      F
```

```
mean(Shoesize)
```

```
## [1] 9.410714
```

```
mean(Height)
```

```
## [1] 68.53571
```

#2.

```
months <- c("March","April","January","November","January",
"September","October","September","November","August",
"January","November","November","February","May","August", "July","December","August","August","Septembe
```

```
factor_months <- factor(months)
factor_months
```

```
##  [1] March     April     January   November  January   September October
##  [8] September November  August    January   November  November  February
## [15] May       August    July      December  August    August    September
## [22] November  February  April
## 11 Levels: April August December February January July March May ... September
```

#3.

```r
summary(months)
```

```
##    Length     Class      Mode
##        24 character character
```

```r
summary(factor_months)
```

```
##     April    August  December  February   January      July     March       May
##         2         4         1         2         3         1         1         1
##  November   October September
##         5         1         3
```

#4.

```r
Direction <- c("East", "West", "North")
Frequency <- c(1,4,3)
```

```r
DF <- data.frame(Direction, Frequency)
DF
```

```
##   Direction Frequency
## 1      East         1
## 2      West         4
## 3     North         3
```

```r
new_order_data <- factor(Direction,levels = c("East","West","North"))
print(new_order_data)
```

```
## [1] East  West  North
## Levels: East West North
```

```r
import_march <- "C:/Users/victo/OneDrive/Desktop/R/RWorksheet4/import_march.csv"
ExcelData <- read.table(import_march, header = TRUE, sep = ",")
```

```
## Warning in read.table(import_march, header = TRUE, sep = ","): line 1 appears
## to contain embedded nulls
```

```
## Warning in read.table(import_march, header = TRUE, sep = ","): incomplete final
## line found by readTableHeader on
## 'C:/Users/victo/OneDrive/Desktop/R/RWorksheet4/import_march.csv'
```

```r
ExcelData
```

```
## [1] PK...
## <0 rows> (or 0-length row.names)
```