Worksheet#4

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#a. Describe the data.

```
Shoesizes <- 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,
               13.0,11.5,8.5,5.0,10.0,
               6.5,7.5,8.5,10.5,8.5,10.5,11.0,9.0,13.0)

Heights <- c(66.0,68.0,64.5,65.0,70.0,
             64.0,70.0,71.0,72.0,64.0,
             74.5,67.0,71.0,71.0,77.0,72.0,
             59.0,62.0,72.0,66.0,64.0,67.0,73.0,
             69.0,72.0,70.0,69.0,70)

Gender <- c("F","F","F","F","M","F","M","F","M",
             "M","M","F","M","M","M","M","F","F",
             "M","F","M","M","M","F","M","M","M","M")

df <- data.frame(Shoesizes,Heights,Gender)
df
```

```
##    Shoesizes Heights Gender
## 1        6.5    66.0      F
## 2        9.0    68.0      F
## 3        8.5    64.5      F
## 4        8.5    65.0      F
## 5       10.5    70.0      M
## 6        7.0    64.0      F
## 7        9.5    70.0      M
## 8        9.0    71.0      F
## 9       13.0    72.0      M
## 10       7.5    64.0      M
## 11      10.5    74.5      M
## 12       8.5    67.0      F
## 13      12.0    71.0      M
## 14      10.5    71.0      M
## 15      13.0    77.0      M
## 16      11.5    72.0      M
## 17       8.5    59.0      F
## 18       5.0    62.0      F
## 19      10.0    72.0      M
## 20       6.5    66.0      F
```

```
## 21       7.5    64.0      M
## 22       8.5    67.0      M
## 23      10.5    73.0      M
## 24       8.5    69.0      F
## 25      10.5    72.0      M
## 26      11.0    70.0      M
## 27       9.0    69.0      M
## 28      13.0    70.0      M
```

#b. Find the mean of shoe size and height of the respondents. #Copy the codes and results.

```
summary(df)
```

```
##    Shoesizes         Heights         Gender
##  Min.   : 5.000   Min.   :59.00   Length:28
##  1st Qu.: 8.500   1st Qu.:65.75   Class :character
##  Median : 9.000   Median :69.50   Mode  :character
##  Mean   : 9.411   Mean   :68.57
##  3rd Qu.:10.500   3rd Qu.:71.25
##  Max.   :13.000   Max.   :77.00
```

SHOESIZE: Mean : 9.411

HEIGHT: Mean :68.57

#c. Is there a relationship between shoe size and height? Why? # Yes, The Higher the height, the greater the shoesize. #the factor levels below the actual values.

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

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. Then check the summary() of the months_vector and factor_months_vector. | #Interpret the results of both vectors. Are they both equally useful in this case?

```
summary(Months)
```

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

```
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. Create a vector and factor for the table below.

```
factor_data <- c(1,4,3)


new_order_data <- factor(factor_data,levels = c("East","West","North"))

print(new_order_data)
```

```
## [1] <NA> <NA> <NA>
## Levels: East West North
```

#5. Enter the data below in Excel with file name = import_march.csv

#a. Import the excel file into the Environment Pane using read.table() function.

```
getwd()
import <- read.table("import_march.csv", header = TRUE, sep=",")
import
```

#b. View the dataset. Write the code and its result.