RworksheetMirabuena#4

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1. The table below shows the data about shoe size and height. Create a data frame..

```
Shoe_size <- c(6.6,9.0,8.5,8.5,10.5,7.0,9.5,9.0,13.0,7.5,10.5,8.5,12.0,10.5)
Height <- 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)
Gender <- c("F","F","F","F","M","F","F","F","M","F","M","F","M","M")
Shoe_size <- c(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)
Height <- c(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, 70.0)
Gender <- c("M" ,"M", "F", "F", "M", "F", "F", "M", "M", "F", "M", "M", "M", "M")

data1<- data.frame(Shoe_size,Height,Gender,Shoe_size,Height,Gender)
data1
```

```
##    Shoe_size Height Gender Shoe_size.1 Height.1 Gender.1
## 1       13.0     77      M        13.0       77        M
## 2       11.5     72      M        11.5       72        M
## 3        8.5     59      F         8.5       59        F
## 4        5.0     62      F         5.0       62        F
## 5       10.0     72      M        10.0       72        M
## 6        6.5     66      F         6.5       66        F
## 7        7.5     64      F         7.5       64        F
## 8        8.5     67      M         8.5       67        M
## 9       10.5     73      M        10.5       73        M
## 10       8.5     69      F         8.5       69        F
## 11      10.5     72      M        10.5       72        M
## 12      11.0     70      M        11.0       70        M
## 13       9.0     69      M         9.0       69        M
## 14      13.0     70      M        13.0       70        M
```

#a. Describe the data. #The data shows the gender and the shoe size however the shoe size vary on gender #if the it is female the smaller the shoe size.

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

```r
mean(Shoe_size)
```

```
## [1] 9.5
```

```
mean(Height)
```

```
## [1] 68.71429
```

#c. Is there a relationship between shoe size and height? Why # As I evaluate there is a relationship between shoe size and height the #higher the height the bigger shoe size

#2. Construct character vector months to a factor with factor() and assign the result to #fac-

tor_months_vector. Print out factor_months_vector and assert that R prints out #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")
months
```

```
##  [1] "March"     "April"     "January"   "November"  "January"   "September"
##  [7] "October"   "September" "November"  "August"    "January"   "November"
## [13] "November"  "February"  "May"       "August"    "July"      "December"
## [19] "August"    "August"    "September" "November"  "February"  "April"
```

```
factor_months_vector <- factor(months)
factor_months_vector
```

```
##  [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( factor_months_vector)
```

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

```
summary(months)
```

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

```
#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. #Write the code.

```
readdata <- read.table("/cloud/project/Worksheet4/import_march.csv", header = TRUE, sep = ",")
readdata
```

```
##   Students Strategy1 Strategy2 Strategy3
## 1     Male         8        10         8
## 2                  4         8         6
## 3                  0         6         4
```

```
## 4   Female        14         4        15
## 5                 10         2        12
## 6                  6         0         9
```

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

```
read.csv ("/cloud/project/Worksheet4/import_march.csv")
```

```
##   Students Strategy1 Strategy2 Strategy3
## 1     Male         8        10         8
## 2                  4         8         6
## 3                  0         6         4
## 4   Female        14         4        15
## 5                 10         2        12
## 6                  6         0         9
```