RWorksheet_Lumauag#4a

Matt Andrei Lumauag

2024-10-14

```
#1
#a
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, 64.5, 65.0, 70.0, 64.0, 70.0, 71.0, 72.0, 64.0, 74.5, 67.0, 71.0, 71.0, 77.0, 7
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)
names(householdData) <- c("Shoesize", "Height", "Gender")
householdData
```

```
##    Shoesize Height 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      F
## 8       9.0   71.0      F
## 9      13.0   72.0      M
## 10      7.5   64.0      F
## 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      F
## 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
householdDataMale <- subset(householdData, Gender == "M")
householdDataMale
```

```
##    Shoesize Height Gender
## 5      10.5   70.0      M
## 9      13.0   72.0      M
## 11     10.5   74.5      M
## 13     12.0   71.0      M
## 14     10.5   71.0      M
## 15     13.0   77.0      M
## 16     11.5   72.0      M
## 19     10.0   72.0      M
## 22      8.5   67.0      M
## 23     10.5   73.0      M
## 25     10.5   72.0      M
## 26     11.0   70.0      M
## 27      9.0   69.0      M
## 28     13.0   70.0      M
```

```
householdDataFemale <- subset(householdData, Gender == "F")
householdDataFemale
```

```
##    Shoesize Height 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
## 6       7.0   64.0      F
## 7       9.5   70.0      F
## 8       9.0   71.0      F
## 10      7.5   64.0      F
## 12      8.5   67.0      F
## 17      8.5   59.0      F
## 18      5.0   62.0      F
## 20      6.5   66.0      F
## 21      7.5   64.0      F
## 24      8.5   69.0      F
```

```
#c
mean(shoesize)
```

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

```
mean(height)
```

```
## [1] 68.57143
```

```
#d
#The relationship could exist due to biological factors, as larger feet are often associated with talle
```

```
#2
#a
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
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
```

```
#Factor_Months is more useful, especially for analysis that involve categorical data, as it allows to t
```

```
#4
direction <- c("East", "West", "North")
frequency <- c(1, 4, 3)

neworderdata <- factor(direction,levels = c("East","West","North"))
neworderdata
```

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

```
#5
options(repos = c(CRAN = "https://cloud.r-project.org"))
install.packages("readxl")
```

```
## package 'readxl' successfully unpacked and MD5 sums checked
##
## The downloaded binary packages are in
##  C:\Users\Matteeuu\AppData\Local\Temp\RtmpwnVFN1\downloaded_packages
```

```
data <- read.table("ExcelData.csv", header = TRUE, sep = ",", stringsAsFactors =  FALSE)
data
```

```
##   Students Strategy.1 Strategy.2 Strategy.3
## 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
```