RWorksheet 4a

Andrey Sumadic

2023-10-25

```
1.
```

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

```r
#A. The vector "sHOE" has a column name    shoe_size and height
#    and you can see the inputted values.

sHOE <- data.frame(
  Shoe_size = 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
  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
)
sHOE
```

```
##    Shoe_size Height
## 1        6.5   66.0
## 2        9.0   68.0
## 3        8.5   64.5
## 4        8.5   65.0
## 5       10.5   70.0
## 6        7.0   64.0
## 7        9.5   70.0
## 8        9.0   71.0
## 9       13.0   72.0
## 10       7.5   64.0
## 11      10.5   74.5
## 12       8.5   67.0
## 13      12.0   71.0
## 14      10.5   71.0
## 15      13.0   77.0
## 16      11.5   72.0
## 17       8.5   59.0
## 18       5.0   62.0
## 19      10.0   72.0
## 20       6.5   66.0
## 21       7.5   64.0
## 22       8.5   67.0
## 23      10.5   73.0
## 24       8.5   69.0
## 25      10.5   72.0
## 26      11.0   70.0
## 27       9.0   69.0
## 28      13.0   70.0
```

```
#B.
Gender <- c("F", "F","F", "F", "M", "F","F","F","M","F","M","F","M","M","M","M","F","F","M","F","F","M"
SHOE <- cbind(sHOE, Gender)
SHOE
```

```
##    Shoe_size 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
```

```
#C.
mean(SHOE$Shoe_size)
```

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

```
mean(SHOE$Height)
```

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

```
#D.Thereis a relation because you can determine the gender
#   based on their shoe size and height alone.
```

```
2.
```

```
## [1] 2
```

```r
factor_months_vector <- factor(c("March","April","January","November","January","September","October","S
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.

```
## [1] 3
```

```r
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
```

4.

```
## [1] 4
```

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

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

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

5.

```
## [1] 5
```

```r
df <- read.table(file='C:/Users/HUAWEI/OneDrive/Documents/Worksheet#4/import_march.csv', header=TRUE, se
df
```

```
##    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
```

```
6.
```

```
## [1] 6
```

```
Input_Number <- readline(prompt = "Enter a number between 1-50: ")
```

```
## Enter a number between 1-50:
```

```
if (Input_Number == 20 ){
  print("TRUE")
} else if (Input_Number < 1 && Input_Number > 50){
  print("The number selected is beyond the range of 1 to 50")
} else {
  paste(Input_Number)
}
```

```
## [1] ""
```