

RWorksheet_Marquez#4a

Kurt Sayro D. Marquez

2024-10-14

#1.

```
Household_data <- read.csv("/cloud/project/RWorkSheet_Marquez#4a/household_data.csv")
Household_data
```

##	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	5.5	70.0	F
## 8	9.0	71.0	M
## 9	7.5	64.0	F
## 10	10.5	74.5	F
## 11	8.5	67.0	M
## 12	12.0	71.0	M
## 13	10.5	71.0	M
## 14	13.0	77.0	M
## 15	11.5	72.0	M
## 16	8.5	59.0	F
## 17	10.0	62.0	F
## 18	6.5	66.0	F
## 19	8.5	64.0	F
## 20	8.5	67.0	M
## 21	10.5	73.0	M
## 22	11.0	72.0	M
## 23	9.0	69.0	M
## 24	13.0	70.0	M

#1.a: The data has 28 objects with 3 variables:Shoe size, Height and Gender

#1.b

```
sub1 <- subset(Household_data, Gender == "M" & Shoe.size<Height)
sub1
```

##	Shoe.size	Height	Gender
## 5	10.5	70	M
## 8	9.0	71	M
## 11	8.5	67	M
## 12	12.0	71	M
## 13	10.5	71	M
## 14	13.0	77	M
## 15	11.5	72	M

```
## 20      8.5      67      M
## 21     10.5     73      M
## 22     11.0     72      M
## 23      9.0     69      M
## 24     13.0     70      M
```

#1.b

```
sub2 <- subset(Household_data, Gender == "F" & Shoe.size<Height)
sub2
```

```
##      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
## 6         7.0   64.0      F
## 7         5.5   70.0      F
## 9         7.5   64.0      F
## 10        10.5   74.5      F
## 16         8.5   59.0      F
## 17        10.0   62.0      F
## 18         6.5   66.0      F
## 19         8.5   64.0      F
```

#1.c

```
mean1 <- mean(Household_data$Shoe.size)
mean1
```

```
## [1] 9.3125
```

```
mean2 <- mean(Household_data$Height)
mean2
```

```
## [1] 68.20833
```

#1.d: Based on the given data if we compare the Male and Female shoe size and height, there's a big difference. If the Height of Males increase the shoe size also increase but Females on the other hand their there's some of them who is much shorter but have bigger shoe size.

#2

```
Months <- c("March", "April", "January", "November", "January", "September", "October", "September", "November")
```

```
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

```
Sum <- summary(Months)
Sum
```

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

```
Sum2 <- summary(factor_months_vector)
Sum2
```

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

#4

```
Datas <- c(c("East", "West", "North"), c(1,4,3))
```

```
Datas
```

```
## [1] "East" "West" "North" "1"      "4"      "3"
```

```
factor_data <- matrix(Datas,nrow=3,ncol=2)
```

```
factor_data
```

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

```
## [1,] "East" "1"
```

```
## [2,] "West" "4"
```

```
## [3,] "North" "3"
```

#4

```
colnames(factor_data) <- c("Direction", "Frequency")
```

```
factor_data
```

```
##      Direction Frequency
```

```
## [1,] "East"      "1"
```

```
## [2,] "West"      "4"
```

```
## [3,] "North"     "3"
```

#4

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

```
print(new_order_data)
```

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

```
## Levels: East West North
```

#5a

```
setwd("/cloud/project/RWorkSheet_Marquez#4a")
```

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

```
Strats
```

```
##      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
```

#5b: The 1,2,3 resulted in NA because those values are missing and did not matched the specified levels

```
Strats
```

```
##      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
```