

## RWorksheet\_Aguirre#4A

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```
data <- 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, 8.5),
  Height = c(66.0, 68.0, 64.5, 65.0, 70.0, 64.0, 70.0, 71.0, 72.0, 64.0, 74.75, 67.0, 71.0, 71.0, 77.0, 75.0, 70.0),
  Gender = c("F", "F", "F", "F", "M", "F", "F", "F", "M", "F", "M", "F", "M", "M", "M", "M", "F", "F", "M")
)
data
```

##	Shoe_Size	Height	Gender
## 1	6.5	66.00	F
## 2	9.0	68.00	F
## 3	8.5	64.50	F
## 4	8.5	65.00	F
## 5	10.5	70.00	M
## 6	7.0	64.00	F
## 7	9.5	70.00	F
## 8	9.0	71.00	F
## 9	13.0	72.00	M
## 10	7.5	64.00	F
## 11	10.5	74.75	M
## 12	8.5	67.00	F
## 13	12.0	71.00	M
## 14	10.5	71.00	M
## 15	13.0	77.00	M
## 16	11.5	72.00	M
## 17	8.5	59.00	F
## 18	5.0	62.00	F
## 19	10.0	72.00	M
## 20	6.5	66.00	F
## 21	7.5	64.00	F
## 22	8.5	67.00	M
## 23	10.5	73.00	M
## 24	8.5	69.00	F
## 25	10.5	72.00	M
## 26	11.0	70.00	M
## 27	9.0	69.00	M
## 28	13.0	70.00	M

B.

```
females <- subset(data, Gender == "F", select = c(Shoe_Size, Height))
females
```

```
##      Shoe_Size Height
## 1          6.5   66.0
## 2          9.0   68.0
## 3          8.5   64.5
## 4          8.5   65.0
## 6          7.0   64.0
## 7          9.5   70.0
## 8          9.0   71.0
## 10         7.5   64.0
## 12         8.5   67.0
## 17         8.5   59.0
## 18         5.0   62.0
## 20         6.5   66.0
## 21         7.5   64.0
## 24         8.5   69.0
```

B.

```
males <- subset(data, Gender == "M", select = c(Shoe_Size, Height))
males
```

```
##      Shoe_Size Height
## 5          10.5  70.00
## 9          13.0  72.00
## 11         10.5  74.75
## 13         12.0  71.00
## 14         10.5  71.00
## 15         13.0  77.00
## 16         11.5  72.00
## 19         10.0  72.00
## 22          8.5  67.00
## 23         10.5  73.00
## 25         10.5  72.00
## 26         11.0  70.00
## 27          9.0  69.00
## 28         13.0  70.00
```

C.

```
mean_shoe_size <- mean(data$Shoe_Size)
mean_shoe_size
```

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

C.

```
mean_height <- mean(data$Height)
mean_height
```

```
## [1] 68.58036
```

D.Is there a relationship between shoe size and height? Why? - No, because

## 2. FACTOR

```
Months <- c("March", "April", "JAnuary", "November", "January", "September", "October", "September", "N
factor_Months <- factor(Months)
factor_Months
```

```
## [1] March      April      JAnuary    November   January    September  October
## [8] September  November   August     January    November   November   Febraury
## [15] May        Augsut
## 11 Levels: April Augsut August Febraury January JAnuary March May ... September
```

```
levels(factor_Months)
```

```
## [1] "April"      "Augsut"     "August"     "Febraury"   "January"    "JAnuary"
## [7] "March"      "May"        "November"   "October"    "September"
```

## 3.

```
summary(Months)
```

```
##      Length      Class      Mode
##           16 character character
```

```
summary(factor_Months)
```

```
##      April      Augsut      August      Febraury      January      JAnuary      March      May
##           1           1           1           1           2           1           1           1
## November      October      September
##           4           1           2
```

## 4.Vector

```
Directions <- c("East", "West", "North")
Frequency <- c(1L, 4L, 3L)
Directions
```

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

```
Frequency
```

```
## [1] 1 4 3
```

## 4.Factor

```
factor_Directions <- factor(Directions)
factor_Directions
```

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

```
factor_Frequency <- factor(Frequency)
factor_Frequency
```

```
## [1] 1 4 3
## Levels: 1 3 4
```

5.

```
data <- read.table("~/DataScience/CS101/worksheet 4a/import_march.csv", header = TRUE, sep = ",", stringsAsFactors = FALSE)
head(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
```