

# Worksheet 3b

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/hfill/break

*#1. Create a data frame using the table below.*

*# a. Write the codes.*

```
Respondents <- c(1:20)
Sex <- c(2,2,1,2,2,2,2,2,2,1,2,2,2,2,2,2,1,2)
Fathers_Occupation <- c(1,3,3,3,1,2,3,1,1,1,3,2,1,3,3,1,3,1,2,1)
Persons_at_Home <- c(5,7,3,8,5,9,6,7,8,4,7,5,4,7,8,8,3,11,7,6)
Siblings_at_School <- c(6,4,4,1,2,1,5,3,1,2,3,2,5,5,2,1,2,5,3,2)
Types_of_Houses <- c(1,2,3,1,1,3,3,1,2,3,2,3,2,2,3,3,3,3,3,2)

dframe <- data.frame(Respondents,Sex,Fathers_Occupation,Persons_at_Home,
                     Siblings_at_School,Types_of_Houses)
dframe
```

##	Respondents	Sex	Fathers_Occupation	Persons_at_Home	Siblings_at_School
## 1	1	2	1	5	6
## 2	2	2	3	7	4
## 3	3	1	3	3	4
## 4	4	2	3	8	1
## 5	5	2	1	5	2
## 6	6	2	2	9	1
## 7	7	2	3	6	5
## 8	8	2	1	7	3
## 9	9	2	1	8	1
## 10	10	2	1	4	2
## 11	11	1	3	7	3
## 12	12	2	2	5	2
## 13	13	2	1	4	5
## 14	14	2	3	7	5
## 15	15	2	3	8	2
## 16	16	2	1	8	1
## 17	17	2	3	3	2
## 18	18	2	1	11	5
## 19	19	1	2	7	3
## 20	20	2	1	6	2
##	Types_of_Houses				
## 1		1			
## 2		2			
## 3		3			

```
## 4      1
## 5      1
## 6      3
## 7      3
## 8      1
## 9      2
## 10     3
## 11     2
## 12     3
## 13     2
## 14     2
## 15     3
## 16     3
## 17     3
## 18     3
## 19     3
## 20     2
```

*#b. Describe the data. Get the structure or the summary of the data.*

*# As shown in the given table, there are 20 respondents, and their given data in numerical form that can be translated only using the legend below.*

```
summary(dframe)
```

```
## Respondents      Sex      Fathers_Occupation Persons_at_Home
## Min.   : 1.00   Min.   :1.00   Min.   :1.00      Min.   : 3.0
## 1st Qu.: 5.75   1st Qu.:2.00   1st Qu.:1.00      1st Qu.: 5.0
## Median :10.50   Median :2.00   Median :2.00      Median : 7.0
## Mean   :10.50   Mean   :1.85   Mean   :1.95      Mean   : 6.4
## 3rd Qu.:15.25   3rd Qu.:2.00   3rd Qu.:3.00      3rd Qu.: 8.0
## Max.   :20.00   Max.   :2.00   Max.   :3.00      Max.   :11.0
## Siblings_at_School Types_of_Houses
## Min.   :1.00     Min.   :1.0
## 1st Qu.:2.00     1st Qu.:2.0
## Median :2.50     Median :2.5
## Mean   :2.95     Mean   :2.3
## 3rd Qu.:4.25     3rd Qu.:3.0
## Max.   :6.00     Max.   :3.0
```

*#c. Is the mean number of siblings attending is 5?*

*# Answer: No, the result of the summary shows that the mean of siblings attending is 2.95.*

*#d. Extract the 1st two rows and then all the columns using the subsetting functions. Write the codes and its output.*

```
subsetdata <- subset(dframe[1:2, 1:6])
subsetdata
```

```
## Respondents Sex Fathers_Occupation Persons_at_Home Siblings_at_School
## 1          1  2              1              5              6
```

```
## 2      2      2      3      7      4
## Types_of_Houses
## 1      1
## 2      2
```

*#e. Extract 3rd and 5th row with 2nd and 4th column. Write the codes and its #result.*

```
extractdata <- subset(dframe[c(3,5),c(2,4)])
extractdata
```

```
## Sex Persons_at_Home
## 3      1      3
## 5      2      5
```

*#f. Select the variable types of houses then store the vector that results as # types\_houses. Write the codes.*

```
variabletypes <- dframe$Persons_at_Home
type_houses <- variabletypes
type_houses
```

```
## [1] 5 7 3 8 5 9 6 7 8 4 7 5 4 7 8 8 3 11 7 6
```

*#g. Select only all Males respondent that their father occupation was farmer. #Write the codes and its output.*

```
Maledata <- subset(dframe[c(1:20), c(2,3)])
Maledata
```

```
## Sex Fathers_Occupation
## 1      2      1
## 2      2      3
## 3      1      3
## 4      2      3
## 5      2      1
## 6      2      2
## 7      2      3
## 8      2      1
## 9      2      1
## 10     2      1
## 11     1      3
## 12     2      2
## 13     2      1
## 14     2      3
## 15     2      3
## 16     2      1
## 17     2      3
## 18     2      1
## 19     1      2
## 20     2      1
```

```
Male <- Maledata[dframe$Fathers_Occupation == '1',]
Male
```

```
##      Sex Fathers_Occupation
## 1      2                    1
## 5      2                    1
## 8      2                    1
## 9      2                    1
## 10     2                    1
## 13     2                    1
## 16     2                    1
## 18     2                    1
## 20     2                    1
```

*#h. Select only all females respondent that have greater than or equal to 5 number of siblings attending school. Write the codes and its outputs.*

```
Fmale <- subset(dframe[c(1:20), c(2,5)])
Fmale
```

```
##      Sex Siblings_at_School
## 1      2                    6
## 2      2                    4
## 3      1                    4
## 4      2                    1
## 5      2                    2
## 6      2                    1
## 7      2                    5
## 8      2                    3
## 9      2                    1
## 10     2                    2
## 11     1                    3
## 12     2                    2
## 13     2                    5
## 14     2                    5
## 15     2                    2
## 16     2                    1
## 17     2                    2
## 18     2                    5
## 19     1                    3
## 20     2                    2
```

```
Female <- Fmale[dframe$Siblings_at_School >= '5',]
Female
```

```
##      Sex Siblings_at_School
## 1      2                    6
## 7      2                    5
## 13     2                    5
## 14     2                    5
## 18     2                    5
```

*#2. Write a R program to create an empty data frame. Using the following codes:*

```
df = data.frame(Ints=integer(),
                Doubles=double(), Characters=character(),
                Logicals=logical(),
                Factors=factor(),
                stringsAsFactors=FALSE)
print("Structure of the empty dataframe:")
```

```
## [1] "Structure of the empty dataframe:"
```

```
print(str(df))
```

```
## 'data.frame':  0 obs. of  5 variables:
## $ Ints      : int
## $ Doubles   : num
## $ Characters: chr
## $ Logicals  : logi
## $ Factors   : Factor w/ 0 levels:
## NULL
```

*#3. Interpret the graph.*

```
# As shown in the graph, the sentiment of tweets per day that ascend the
# most is the negative sentiment.
```