

RWorksheet_Sabarillo#3b

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#1.a

```
maketable <- data.frame(Respondent = c(1:20), Sex = c(2,2,1,2,2,2,2,2,2,2,1,2,2,2,2,2,2,1,2), FathersOccupation = c(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19), PersonsAtHome = c(5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23), SiblingsatSchool = c(6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24))
```

##	Respondent	Sex	FathersOccupation	PersonsAtHome	SiblingsatSchool
## 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

##	TypesOfHouses
## 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
```

#Legend:Male=1 Farmer=1 Wood=1 # Female=2 Driver=2 Semi-Concrete=2 # Others=3 Concrete=3

#1.b

```
summary(maketable)
```

```
##      Respondent      Sex      FathersOccupation PersonsAtHome
##  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
## SiblingsatSchool TypesOfHouses
##  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
```

#1.c: No, the mean is 2.95 based on summary

#1.d

```
access <- maketable[1:2,]
access
```

```
##      Respondent Sex FathersOccupation PersonsAtHome SiblingsatSchool TypesOfHouses
## 1             1  2                   1             5             6             1
## 2             2  2                   3             7             4             2
```

#1.e

```
access2 <- maketable[c(3,5),c(2,4)]
access2
```

```
##      Sex PersonsAtHome
## 3      1              3
## 5      2              5
```

#1.f

```
typeshouses <- maketable$TypesOfHouses
typeshouses
```

```
## [1] 1 2 3 1 1 3 3 1 2 3 2 3 2 2 3 3 3 3 3 2
```

#1.g

```
malesrespondent <- subset(maketable, Sex == 1 & FathersOccupation == 1)
malesrespondent
```

```
## [1] Respondent      Sex      FathersOccupation PersonsAtHome
## [5] SiblingsatSchool TypesOfHouses
## <0 rows> (or 0-length row.names)
```

#1.h

```
femrespondent <- subset(maketable, Sex == 2 & SiblingsatSchool >= 5)
femrespondent
```

```
##      Respondent Sex FathersOccupation PersonsAtHome SiblingsatSchool
## 1           1   2              1              5              6
## 7           7   2              3              6              5
## 13          13   2              1              4              5
## 14          14   2              3              7              5
## 18          18   2              1             11              5
##      TypesOfHouses
## 1              1
## 7              3
## 13             2
## 14             2
## 18             3
```

```
#2
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
```

```
#2.a: It prints the datatype of the object and there's 0 levels
```

```
#3.a
HousesData <- read.csv("/cloud/project/worksheet#3/HouseholdData.csv")
HousesData
```

```
##      Respondents      Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1              1   Male              1              5              2
## 2              2 Female              2              7              3
## 3              3 Female              3              3              0
## 4              4   Male              3              8              5
## 5              5   Male              1              6              2
## 6              6 Female              2              4              3
## 7              7 Female              2              4              1
## 8              8   Male              3              2              2
## 9              9 Female              1             11              6
## 10             10 Male              3              6              2
##      Types.of.Houses
## 1              Wood
## 2              Congrete
## 3              Congrete
## 4              Wood
```

```
## 5    Semi-Congrete
## 6    Semi-Congrete
## 7      Wood
## 8    Semi-Congrete
## 9    Semi-Congrete
## 10   Congrete
```

#3.b

```
HousesData$Sex <- factor(HousesData$Sex, levels = c("Male", "Female"), labels = c(1,2))
HousesData
```

```
##      Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1             1   1                1                5                2
## 2             2   2                2                7                3
## 3             3   2                3                3                0
## 4             4   1                3                8                5
## 5             5   1                1                6                2
## 6             6   2                2                4                3
## 7             7   2                2                4                1
## 8             8   1                3                2                2
## 9             9   2                1               11                6
## 10            10   1                3                6                2
##      Types.of.Houses
## 1             Wood
## 2             Congrete
## 3             Congrete
## 4             Wood
## 5    Semi-Congrete
## 6    Semi-Congrete
## 7             Wood
## 8    Semi-Congrete
## 9    Semi-Congrete
## 10   Congrete
```

#3.c

```
HousesData$Types.of.Houses <- factor(HousesData$Types.of.Houses, levels = c("Wood", "Congrete", "Semi-Congrete"), labels = c(1,2,3))
HousesData
```

```
##      Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1             1   1                1                5                2
## 2             2   2                2                7                3
## 3             3   2                3                3                0
## 4             4   1                3                8                5
## 5             5   1                1                6                2
## 6             6   2                2                4                3
## 7             7   2                2                4                1
## 8             8   1                3                2                2
## 9             9   2                1               11                6
## 10            10   1                3                6                2
##      Types.of.Houses
## 1             1
## 2             2
## 3             2
## 4             1
## 5             3
## 6             3
```

```
## 7      1
## 8      3
## 9      3
## 10     2
```

#3.d

```
HousesData$Fathers.Occupation <- factor(HousesData$Fathers.Occupation, levels = c(1,2,3), label = c("Farmer", "Driver", "Others"))
HousesData
```

```
##      Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 1      1      1      Farmer      5      2
## 2      2      2      Driver      7      3
## 3      3      2      Others      3      0
## 4      4      1      Others      8      5
## 5      5      1      Farmer      6      2
## 6      6      2      Driver      4      3
## 7      7      2      Driver      4      1
## 8      8      1      Others      2      2
## 9      9      2      Farmer     11      6
## 10     10     1      Others      6      2
##      Types.of.Houses
## 1      1
## 2      2
## 3      2
## 4      1
## 5      3
## 6      3
## 7      1
## 8      3
## 9      3
## 10     2
```

#3.e

```
DriverDad <- subset(HousesData, Sex == 2 & Fathers.Occupation == "Driver")
DriverDad
```

```
##      Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 2      2      2      Driver      7      3
## 6      6      2      Driver      4      3
## 7      7      2      Driver      4      1
##      Types.of.Houses
## 2      2
## 6      3
## 7      1
```

#3.f

```
siblings <- subset(HousesData, Respondents & Siblings.at.School >= 5)
siblings
```

```
##      Respondents Sex Fathers.Occupation Persons.at.Home Siblings.at.School
## 4      4      1      Others      8      5
## 9      9      2      Farmer     11      6
##      Types.of.Houses
## 4      1
## 9      3
```

#4

#. The graph illustrates the daily sentiment of tweets over a week in July. It reveals a consistent tr