RWorksheet_Redosendo#3b

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2025-11-16

1. Create a data frame using the table below

a. Write the codes

b. Describe the data

```
## [1] "Data Frame:"
```

```
##    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               2
## 18               3
## 19               3
## 20               2
```

```
## [1] "Structure of the Data:"
```

```
## 'data.frame':    20 obs. of  6 variables:
##  $ Respondents       : int  1 2 3 4 5 6 7 8 9 10 ...
##  $ Sex               : num  2 2 1 2 2 2 2 2 2 2 ...
##  $ Fathers_Occupation: num  1 3 3 3 1 2 3 1 1 1 ...
##  $ Persons_at_Home   : num  5 7 3 8 5 9 6 7 8 4 ...
##  $ Siblings_at_School: num  6 4 4 1 2 1 5 3 1 2 ...
##  $ Types_of_Houses   : num  1 2 3 1 1 3 3 1 2 3 ...
```

```
## [1] "Summary of the Data:"
```

```
##   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.   :1.00
##  1st Qu.:2.00       1st Qu.:2.00
##  Median :2.50       Median :2.00
##  Mean   :2.95       Mean   :2.25
##  3rd Qu.:4.25       3rd Qu.:3.00
##  Max.   :6.00       Max.   :3.00
```

c. Is the mean number of siblings attending 5?

```
## [1] "Actual mean is: 2.95"
```

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

d. Extract the 1st two rows

```
##   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 rows with 2nd and 4th columns

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

f. Select Types_of_Houses into a vector

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

g. Select male respondents whose father is a farmer

```
## [1] Respondents        Sex                Fathers_Occupation Persons_at_Home
## [5] Siblings_at_School Types_of_Houses
## <0 rows> (or 0-length row.names)
```

h. Select female respondents with 5 siblings attending school

```
##    Respondents Sex Fathers_Occupation Persons_at_Home Siblings_at_School
## 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
##    Types_of_Houses
## 1                1
## 7                3
## 13               2
## 14               2
## 18               3
```

2. Create an empty data frame

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

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

a. Describe the results

The empty dataframe contains the correct column names and data types but **zero rows**.

3. Import the CSV file

```
## [1] "Imported CSV Data:"
```

```
## [1] Ints       Doubles    Characters Logicals   Factors
## <0 rows> (or 0-length row.names)
```

b. Convert Sex (Male=1, Female=2)

```
## factor()
## Levels: 1 2
```

c. Convert Types_of_Houses (Wood=1, Concrete=2, Semi-Congrete=3)

```
## factor()
## Levels: 1 2 3
```

d. Convert Fathers_Occupation (Farmer=1, Driver=2, Others=3)

```
## factor()
## Levels: 1 2 3
```

e. Select all females whose father is a driver

```
## [1] Ints              Doubles           Characters        Logicals
## [5] Factors           Sex               Types_of_Houses   Fathers_Occupation
## <0 rows> (or 0-length row.names)
```

f. Select respondents with 5 siblings attending school

```
##    Respondents Sex Fathers_Occupation Persons_at_Home Siblings_at_School
## 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
##    Types_of_Houses
## 1                1
## 7                3
## 13               2
## 14               2
## 18               3
```