WORKSHEET3B

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2022-11-23

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
respondents <- c(1:20)
sex <- c(2, 2, 1, 2, 2, 2, 2, 2, 2, 2, 1, 2, 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)
respondents
```

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

```
sex
```

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

```
fathers_occupation
```

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

```
persons_at_home
```

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

```
siblings_at_school
```

```
##  [1] 6 4 4 1 2 1 5 3 1 2 3 2 5 5 2 1 2 5 3 2
```

```
types_of_houses
```

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

```
rdata <- data.frame(respondents, sex, fathers_occupation,persons_at_home, siblings_at_school,types_of_h
rdata
```

```
##    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
```

```
mean(siblings_at_school)
```

```
## [1] 2.95
```

```
r <- rdata[1:2, 1:6, drop =FALSE]
 r
```

```
##   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
```

```
new_data <- rdata[c(3,5), c(2,4)]
new_data
```

```
##   sex persons_at_home
## 3   1               3
## 5   2               5
```

```
types_houses <- types_of_houses
types_houses
```

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

```
male_data <- data.frame(sex, fathers_occupation)
subset(male_data, sex == 1 & fathers_occupation == 1)
```

```
## [1] sex               fathers_occupation
## <0 rows> (or 0-length row.names)
```

```
girl_data <- data.frame(sex, siblings_at_school)
subset(girl_data, sex == 2 & siblings_at_school >= 5)
```

```
##    sex siblings_at_school
## 1    2                  6
## 7    2                  5
## 13   2                  5
## 14   2                  5
## 18   2                  5
```

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

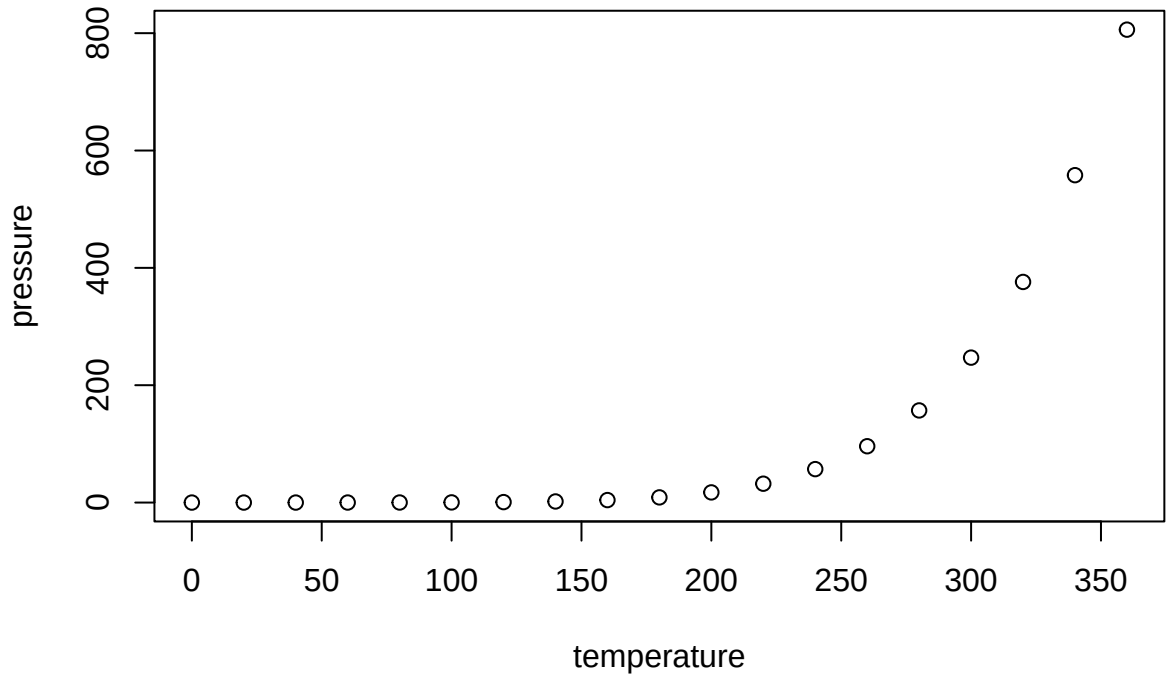
```
## [1] "Structure of the empty dataframe:"
```

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

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

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.