RWorksheet_Barrientos#ARmn.Rmd

Auderie Josh Barrientos

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itle: “RWorksheet_Quebral#3” author: “Myles Andrei Quebral” date: “2024-09-30” output: pdf_document

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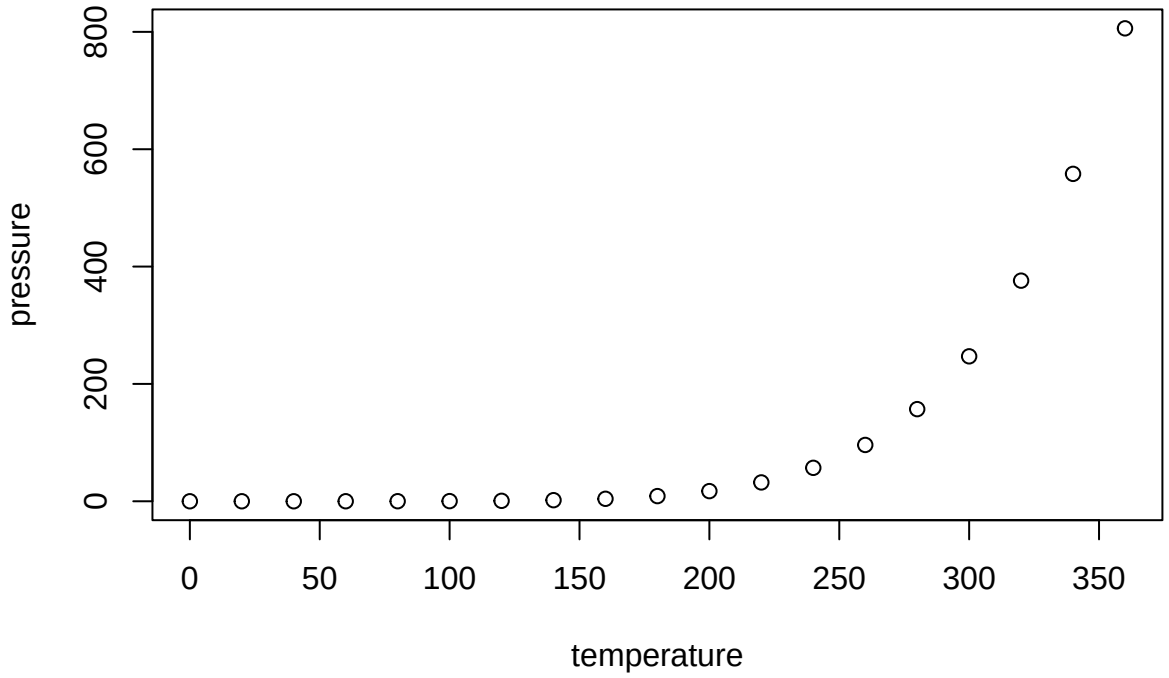

1.

a.

```
Letters <- c("A","B","C","D","E","F","G","H","I","J","K","L","M","N", "O","P","Q","R","S","T","U","V","W

letters <- c("a","b","c","d","e","f","g","h","i","j","k","l","m","n", "o","p","q","r","s","t","u","v","w
```

```
eleven <- Letters[1:11]
eleven
```

```
##  [1] "A" "B" "C" "D" "E" "F" "G" "H" "I" "J" "K"
```

b.

```
odd <- Letters[seq("1","26", by = 2)]
odd
```

```
##  [1] "A" "C" "E" "G" "I" "K" "M" "O" "Q" "S" "U" "W" "Y"
```

c.

```
vowels <- Letters[c(1,5,9,15,21)]
vowels
```

```
## [1] "A" "E" "I" "O" "U"
```

d.

```
last5 <- tail(letters,5)
last5
```

```
## [1] "v" "w" "x" "y" "z"
```

e.

```
between <- letters[c(15:24)]
between
```

```
##  [1] "o" "p" "q" "r" "s" "t" "u" "v" "w" "x"
```

2.

```
tempp <- c(42,39,34,34,30,27)
```

a.

```
place <- c("Tuguegarao City", "Manila", "Iloilo City", "Tacloban","Samal Island", "Davao City")
```

b.

```
temp <- mean(tempp)
temp
```

```
## [1] 34.33333
```

c.

```
city_temp <- data.frame(tempp,place)
city_temp
```

```
##   tempp           place
## 1    42 Tuguegarao City
## 2    39          Manila
## 3    34     Iloilo City
## 4    34        Tacloban
## 5    30    Samal Island
## 6    27      Davao City
```

d.

```
names(city_temp) <-  c("Temperature", "City")
city_temp
```

```
##   Temperature            City
## 1          42 Tuguegarao City
## 2          39          Manila
## 3          34     Iloilo City
## 4          34        Tacloban
## 5          30    Samal Island
## 6          27      Davao City
```

e.

```
str(city_temp)
```

```
## 'data.frame':    6 obs. of  2 variables:
##  $ Temperature: num  42 39 34 34 30 27
##  $ City       : chr  "Tuguegarao City" "Manila" "Iloilo City" "Tacloban" ...
```

f.

```
row_content3 <- city_temp[3,]
row_content4 <- city_temp[4,]

row_content3
```

```
##   Temperature        City
## 3          34 Iloilo City
```

```
row_content4
```

```
##   Temperature     City
## 4          34 Tacloban
```

g.

```
max_index <- max(city_temp$Temperature)
max_index
```

```
## [1] 42
```

```
min_index <- min(city_temp$Temperature)
min_index
```

```
## [1] 27
```

2.

```
matrics <- matrix(c(1:8,11:14),nrow=3,ncol=4)
matrics
```

```
##      [,1] [,2] [,3] [,4]
## [1,]    1    4    7   12
## [2,]    2    5    8   13
## [3,]    3    6   11   14
```

b.

```
multiply <- matrics*2
multiply
```

```
##      [,1] [,2] [,3] [,4]
## [1,]    2    8   14   24
## [2,]    4   10   16   26
## [3,]    6   12   22   28
```

c.

```
row2 <- matrics[2,]
row2
```

```
## [1]  2  5  8 13
```

d.

```
display <-  matrics[1:2,3:4]
display
```

```
##      [,1] [,2]
## [1,]    7   12
## [2,]    8   13
```

e.

```
col23 <- matrics[3,2:3]
col23
```

```
## [1]  6 11
```

f.

```
col4 <- matrics[,4]
col4
```

```
## [1] 12 13 14
```

g.

```
dimnames(multiply) <- list( c("isa", "dalawa", "tatlo"),  c("uno", "dos", "tres", "quatro"))
multiply
```

```
##        uno dos tres quatro
## isa      2   8   14     24
## dalawa   4  10   16     26
## tatlo    6  12   22     28
```

h.

```
dim(matrics) <- c(6,2)
matrics
```

```
##      [,1] [,2]
## [1,]    1    7
## [2,]    2    8
## [3,]    3   11
## [4,]    4   12
## [5,]    5   13
## [6,]    6   14
```

3.

```
arr <- c(1, 2, 3, 6, 7, 8, 9, 0, 3, 4, 5, 1)
arr
```

```
##  [1] 1 2 3 6 7 8 9 0 3 4 5 1
```

```
rra <- c(1, 2, 3, 6, 7, 8, 9, 0, 3, 4, 5, 1)
rra
```

```
##  [1] 1 2 3 6 7 8 9 0 3 4 5 1
```

a.

```
aray <- array(c(arr,rra),dim=c(2,4,3))
 aray
```

```
## , , 1
##
```

```
##      [,1] [,2] [,3] [,4]
## [1,]    1    3    7    9
## [2,]    2    6    8    0
##
## , , 2
##
##      [,1] [,2] [,3] [,4]
## [1,]    3    5    1    3
## [2,]    4    1    2    6
##
## , , 3
##
##      [,1] [,2] [,3] [,4]
## [1,]    7    9    3    5
## [2,]    8    0    4    1
```

b.

3.

C.

```
column.names <- c("A","B","C","D")
row.names <- c("a","b")
matrix.names <- c("1st-Dimensional Array","2nd-Dimensional Array","3rd-Dimensional Array")

aray <- array(c(arr,rra),dim = c(2,4,3),dimnames = list(row.names,column.names,
   matrix.names))
aray
```

```
## , , 1st-Dimensional Array
##
##   A B C D
## a 1 3 7 9
## b 2 6 8 0
##
## , , 2nd-Dimensional Array
##
##   A B C D
## a 3 5 1 3
## b 4 1 2 6
##
## , , 3rd-Dimensional Array
##
##   A B C D
## a 7 9 3 5
## b 8 0 4 1
```