RWorksheet_Lomibao#3

lomibao

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1.LETTERS

```
LETTERS
```

```
##  [1] "A" "B" "C" "D" "E" "F" "G" "H" "I" "J" "K" "L" "M" "N" "O" "P" "Q" "R" "S"
## [20] "T" "U" "V" "W" "X" "Y" "Z"
```

letters

```
letters
```

```
##  [1] "a" "b" "c" "d" "e" "f" "g" "h" "i" "j" "k" "l" "m" "n" "o" "p" "q" "r" "s"
## [20] "t" "u" "v" "w" "x" "y" "z"
```

A.

```
let_v <- LETTERS[1:11]
let_v
```

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

B.

```
odlet <- LETTERS[seq(1, length(LETTERS), 2)]
odlet
```

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

C.

```
vowels <- c("a","e","i","o","u")
vowels
```

```
## [1] "a" "e" "i" "o" "u"
```

D.

```
vector <- c("v","w","x","y","z")
vector
```

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

E.

```
new_vector <- letters[15:24]
new_vector
```

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

2.A.

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

```
## [1] "Tuguegarao City" "Manila"          "Iloilo City"     "Samal Island"
## [5] "Davao City"
```

B.

```
temp <- c(42,39,34,34,27)
temp
```

```
## [1] 42 39 34 34 27
```

C.

```
cit_tempdf <- data.frame(city,temp)
cit_tempdf
```

```
##              city temp
## 1 Tuguegarao City   42
## 2          Manila   39
## 3     Iloilo City   34
## 4    Samal Island   34
## 5      Davao City   27
```

D.

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

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

E.It shows the how many object and variables in the data frame.

```
str(cit_tempdf)
```

```
## 'data.frame':    5 obs. of  2 variables:
##  $ City       : chr  "Tuguegarao City" "Manila" "Iloilo City" "Samal Island" ...
##  $ Temperature: num  42 39 34 34 27
```

F.

```
nv <- cit_tempdf[3:4, ]
nv
```

```
##           City Temperature
## 3  Iloilo City          34
## 4 Samal Island          34
```

G.

```
high_temp <-  max(cit_tempdf$temp)
```

```
## Warning in max(cit_tempdf$temp): no non-missing arguments to max; returning
## -Inf
```

```
print(high_temp)
```

```
## [1] -Inf
```

```
low_temp <-  min(cit_tempdf$temp)
```

```
## Warning in min(cit_tempdf$temp): no non-missing arguments to min; returning Inf
```

```
print(low_temp)
```

```
## [1] Inf
```

2.A.

```
matx <- matrix(data = c(1,2,3,4,5,6,7,8,11,12,13,14),3,4)
matx
```

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

B.The numbers at the matrix multiplies by 2.

```
new_matx <- matx * 2
new_matx
```

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

C.

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

```
## [1]  4 10 16 26
```

D.

```
new_matx[1:2 ,3:4]
```

```
##      [,1] [,2]
## [1,]   14   24
## [2,]   16   26
```

E.

```
new_matx[3, 2:3]
```

```
## [1] 12 22
```

F.

```
new_matx[,4]
```

```
## [1] 24 26 28
```

G.

```
rownames(new_matx) <- c("isa", "dalawa", "tatlo")
colnames(new_matx) <- c("uno", "dos", "tres", "quatro")
new_matx
```

```
##        uno dos tres quatro
## isa      2   8   14     24
## dalawa   4  10   16     26
```

```
## tatlo    6  12   22     28
```

H.

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

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

3.

```
vec <- c(11, 21, 32, 16, 7, 48, 39, 10, 32, 4, 52, 11)
vecrep<- rep(vec, each = 2)
ars <- array(vecrep, dim = c(2, 4, length(vecrep)/(2*4)))
ars
```

```
## , , 1
##
##      [,1] [,2] [,3] [,4]
## [1,]   11   21   32   16
## [2,]   11   21   32   16
##
## , , 2
##
##      [,1] [,2] [,3] [,4]
## [1,]    7   48   39   10
## [2,]    7   48   39   10
##
## , , 3
##
##      [,1] [,2] [,3] [,4]
## [1,]   32    4   52   11
## [2,]   32    4   52   11
```

B.Its has 3 dimension

```
dim(ars)
```

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

C.

```
rownames(ars) <- letters[1:2]
colnames(ars) <- LETTERS[1:4]
dimnames(ars) <- list(letters[1:2], LETTERS[1:4], c("1st-Dimensional Array", "2nd-Dimensional Array", "
ars
```

```
## , , 1st-Dimensional Array
##
##    A  B  C  D
## a 11 21 32 16
## b 11 21 32 16
##
```

```
## , , 2nd-Dimensional Array
##
##   A  B  C  D
## a 7 48 39 10
## b 7 48 39 10
##
## , , 3rd-Dimensional Array
##
##    A B  C  D
## a 32 4 52 11
## b 32 4 52 11
```