```
#1 #a first_11_letters <- LETTERS[1:11] first_11_letters

#b odd_numbered_letters <- LETTERS[seq(1, length(LETTERS), by = 2)] odd_numbered_letters

#c vowels <- LETTERS[LETTERS %in% c("A", "E", "I", "O", "U")] vowels

#d last_5_lowercase <- tail(letters, 5) last_5_lowercase

#e letters_15_to_24 <- letters[15:24] letters_15_to_24

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

temp <- c(42, 39, 34, 34, 30, 27) temp

df <- data.frame(City = city, Temperature = temp) df

names(df) <- c("City", "Temperature") names(df)

str(df)

df[3, ] df[4, ]
```

City with the highest temperature

 $\max_{\text{temp_city}} < -\text{df}[\text{df}Temperature} = = \max(\text{df}Temperature}), "City"]$

City with the lowest temperature

```
\begin{aligned} &\min\_\text{temp\_city} <-\text{df}[\text{df}Temperature} == \min(\text{df}\text{Temperature}), \text{``City''}] \\ &\max\_\text{temp\_city} \min\_\text{temp\_city} \\ &\max <-\text{matrix}(c(1:8, 11:14), \text{nrow} = 3, \text{ncol} = 4) \text{ mat} \\ &\max * 2 \\ &\max[2, ] \\ &\max[3, 2:3] \\ &\max[4] \\ &\text{rownames}(\text{mat}) <-\text{c(``isa'', ``dalawa'', ``tatlo'')} \text{ colnames}(\text{mat}) <-\text{c(``uno'', ``dos'', ``tres'', ``quatro'')} \text{ mat} \\ &\dim(\text{mat}) <-\text{c(6, 2)} \text{ mat} \\ &\text{numeric\_values} <-\text{c(1, 2, 3, 6, 7, 8, 9, 0, 3, 4, 5, 1)} \text{ repeated\_values} <-\text{rep(numeric\_values, each} = 2) \\ &\operatorname{array\_3d} <-\text{array(repeated\_values, dim} = \text{c(2, 4, 3)}) \\ &\text{rownames(array\_3d)} <-\text{letters}[1:2] \text{ colnames(array\_3d)} <-\text{LETTERS}[1:4] \text{ dimnames(array\_3d)} <-\text{list(``1st-Dimensional Array'', ``2nd-Dimensional Array'', ``3rd-Dimensional Array'')} \end{aligned}
```