RWorksheet_Sison#3A

2024-09-30

USING VECTORS LETTERS 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”, “X”, “Y”, “Z”) first_eleven_letters <-LETTERS[1:11] first_eleven_letters

B. alphabet <- LETTERS odd_letters <- alphabet[c(TRUE, FALSE)] odd_letters

c. vowels <- c(“A”, “E”, “I”, “O”, “U”) vowels

letters D. small_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”, “x”, “y”, “z”) last_five <-small_letters[22:26] last_five

E. small_letters fifteen_twentyfour <- small_letters [15:24] fifteen_twentyfour

2. avg_temperatures <- c(42, 39, 34, 34, 30, 27) avg_temperatures

A. city <- c(“Tuguegarao City”, “Manila”, “Iloilo City”, “Tacloban”, “Samal Island”, “Davao City”) city

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

C. comb <- data.frame (city = c(“Tuguegarao City”, “Manila”, “Iloilo City”, “Tacloban”, “Samal Island”, “Davao City”), temp = c(42, 39, 34, 34, 30, 27)) comb

D. df <- data.frame (City = c(“Tuguegarao City”, “Manila”, “Iloilo City”, “Tacloban”, “Samal Island”, “Davao City”), Temperature = c(42, 39, 34, 34, 30, 27)) names(df) <- c(“City”, “Temperature”) print(df)

E. str(df)

F. rows_3_and_4 <- df[3:4,] rows_3_and_4

G. highest_temp_city <- df[which.max(df$Temperature),] $lowest_temp_city <- df[which.min(df$Temperature),] highest_temp_city lowest_temp_city

USING MATRICES 2. matrix(c(5, 6, 7, 4, 3, 2, 1, 2, 3, 7, 8,9), nrow=2) matrix(data = c(3, 4, 5, 6, 7, 8), 3, 2) diag(1, nrow =6, ncol =5) diag (6)

A. values <- c(1:8, 11:14) matrix_4by3 <- matrix (values, nrow = 3, ncol =4) matrix_4by3

B. matrix_multiplied <- matrix_4by3*2 matrix_multiplied

C. row2 <- matrix_4by3 [2,] row2

D. d_result <- matrix_4by3[1:2, 3:4] d_result

E. e_result <- matrix_4by3[3, 2:3] e_result

F. f_result <- matrix_4by3[, 4] f_result

G. rownames(matrix_multiplied) <- c(“isa”, “dalawa”, “tatlo”) colnames(matrix_multiplied) <- c(“uno”, “dos”, “tres”, “kwatro”) matrix_multiplied

H. dim(matrix_4by3) <- (2, 6) matrix_4by3

3. #1 array_dta <- array(c(1:24), c(3,4,2)) array_dta

dim(array_dta)

length(array_dta)

#2 vectorA <- c(1:24)

an_Array <- array(vectorA, dim = c(3, 4, 2)) an_Array

#3A values <- rep(c(1, 2, 3, 6, 7, 8, 9, 0, 3, 4, 5, 1), times = 2) array_data <- array(values, dim = c(2, 4, 3)) array_data

#3B dim(array_data)

#3C dimnames(array_data) <- list(c(“a”, “b”,), c(“A”, “B”, “C”, “D”),c(“1st-Dimensional Array”, “2nd-Dimensional Array”, “3rd-Dimensional Array))

array_data