

RWorksheet_Lumauag#1.Rmd

2024-09-17

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#1 age <- c(34, 28, 22, 36, 27, 18, 52, 39, 42, 29, 35, 31, 27, 22, 37, 34, 19, 20, 57, 49, 50, 37, 46, 25, 17, 37, 42, 53, 41, 51, 35, 24, 33, 41)

#Rcode and output age_data_points <- length(age) age_data_points

#2 reciprocal_age <- 1 / age reciprocal_age

#3 new_age <- c(age, 0, age) new_age

#What happen to the new_age? #It concantenates the age verctor, 0, and the age again.

#4 sort(age)

#5 max(age) min(age)

#6 data <- c(2.4, 2.8, 2.1, 2.5, 2.4, 2.2, 2.5, 2.3, 2.5, 2.3, 2.4, 2.7)

data_data_points <- length(data) data_data_points

#7 doubled_age <- age * 2 doubled_age

#What happen to the data? Each value of data in the age vector was multiplied by 2

#8

#a length8_1 <- length(sequence1to100) length8_2 <- length(sequence_20_60) length8_3 <-
length(mean_20_60) length8_4 <- length(sumOf51to91)

total_length <- sum(length8_1, length8_2, length8_3, length8_4) total_length

Total number of data points = 100 (8.1) + 41 (8.2) + 1 (8.3) + 1 (8.4) = 143 data points

#b #8.1 sequence1to100 <- seq(1:100) sequence1to100

#8.2 sequence_20_60 <- seq(20:60) sequence_20_60

#8.3 mean_20_60 <- mean(20:60) mean_20_60

#8.4 sumOf51to91 <- sum(51:91) sumOf51to91

#8.5 sequence1to1000 <- seq(1:1000) sequence1to1000

#c The maximum data point in this set is 10 sequence1to1000 <- seq(1:1000) first10_elements <- se-
quence1to1000[1:10] maxValueof_first_10 <- max(first10_elements)

first10_elements maxValueof_first_10

#9 numbers <- 1:100 filtered_numbers <- Filter(function(i) { all(i %% c(3,5,7) != 0) }, seq(100)) fil-
tered_numbers

#10 sequence1to100 <- seq(100:1) sequence1to100

#11

#a Total number of data points from Tasks 10 to 11 is 112 data points, 100 (from Task 10) + 11 and 1 from
sum of multiples (from Task 11)
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#b upper_limit <- 24 numbersBelow25 <- 1:(upper_limit - 1) multiplesOf3_or_5 <- Filter(function(i) {
any(i %% c(3, 5) == 0) }, seq(24)) multiplesOf3_or_5
sum_multiples <- sum(multiplesOf3_or_5) sum_multiples
#12 x <- {0 + x + 5 + }
#The statement x <- {0 + x + 5 + } results in an incomplete expression error.
#13 score <- c(72, 86, 92, 63, 88, 89, 91, 92, 75, 75, 77)
score [2] score [3]
#14 a <- c(1,2,NA,4,NA,6,7) print(a,na.print="999") #The NA values has been replaced to 999.
#15 name = readline(prompt="Input your name:") age = readline(prompt="Input your age:")
print(paste("My name is",name, "and I am",age ,"years old.)) print(R.version.string)
#The output was unorganized because of the format of functions.

```