RWorksheet_Arlante#1.Rmd.

Stephanie Lois Amber Arlante

2024-10-02

{r setup, include=FALSE} knitr::opts_chunk$set(echo = TRUE)

"'{r} # 1.Set up the vector named age 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)

a. Find the number of data points in the 'age' vector

num_data_points <- length(age)

Output the number of data points

num_data_points

```{r}
# 2.Set up the vector named age
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

# Find the reciprocal of the values in the 'age' vector
reciprocal_age <- 1 / age

# Output the reciprocal values
reciprocal_age
```

"'{r} # 3. original age vector 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)

Assign also new_age <- c(age, 0, age).

new_age <- c(age, 0, age)

What happen to the new_age?

new_age

```{r}
# 4. Original age
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

# Sort the values in the age
sorted_age <- sort(age)

# Output the sorted age
```

```
sorted_age
```

“‘{r} # 5. Original age 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)

Find the minimum value in the age

min_age <- min(age)

Find the maximum value in the age

max_age <- max(age)

Output the minimum and maximum values

min_age max_age

```
```{r}
# 6. Named Data
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)

# a. Find the number of data points in the data
num_data_points <- length(data)

# Output the number of data
num_data_points
```

“‘{r} # 7. Named Data 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)

Double value in data

doubled_data <- data * 2

New doubled_data

doubled_data

```
```{r}
# 8.1 Integers from 1 to 100.

Sequesnce_1_to_100 <- seq(1, 100)

Sequesnce_1_to_100
```

“‘{r} # 8.2 Numbers from 20 to 60

sequennce_20_to_60 <- seq(20, 60)

sequennce_20_to_60

```
```{r}
# 8.3 Numbers from 20 to 60
numbers_20_to_60 <- seq(20, 60)
```
```

```
mean_20_to_60 <- mean(numbers_20_to_60)

mean_20_to_60
```

"'{r} # 8.4 Sum of numbers from 51 to 91 numbers_51_to_91 <- seq(51, 91)

sum_51_to_91 <- sum(numbers_51_to_91)

sum_51_to_91

```
```{r}
# 8.5 Integers from 1 to 1,000
sequence_1_to_1000 <- seq(1, 1000)

sequence_1_to_1000
```

"'{r} # 9. Create a vector from 1 to 100 vec <- seq(100)

result <- Filter(function(i) { all(i %% c(3, 5, 7) != 0) }, vec)

result

result

```
```{r}
# 10. Generate a sequence from 1 to 100
seq_1_to_100 <- 1:100

# Reverse sequence
seq_100_to_1 <- rev(seq_1_to_100)

# esult
seq_100_to_1
```

"'{r} # 11. Generate a vector of natural numbers below 25 numbers <- 1:24

Find numbers that are multiples of 3 or 5

multiples_of_3_or_5 <- numbers[numbers %% 3 == 0 | numbers %% 5 == 0]

Sum of multiples

sum_multiples <- sum(multiples_of_3_or_5)

results

multiples_of_3_or_5 sum_multiples

```
```{r}
# 12
x <- {0 + x + 5 + }

# The message indicates that R encountered an unexpected end of input because the expression is not com
```
```

“‘{r} # 13. Set up the vector score <- c(72, 86, 92, 63, 88, 89, 91, 92, 75, 75, 77)

x2 <- score[2] x3 <- score[3]

x2 x3

```{r}
# 14.
# Create the vector
a <- c(1, 2, NA, 4, NA, 6, 7)

# Print the vector with NA values displayed as -999
print(a, na.print = "-999")

#output
#     2 -999    4 -999    6    7
#Original Vector: a is c(1, 2, NA, 4, NA, 6, 7). Printing with na.print: NA values are displayed as -999
```

“‘{R} # 15

#Prompt for name

name = readline(prompt=“Input your name:”)

age = readline(prompt=“Input your age:”)

print(paste(“My name is”, name, “and I am”, age, “years old.”))

“‘