RWorksheet.Sanceda#1.Rmd.

2024-09-17

1.Set up a 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, 3
```

```
age
```

a.How many data points.

```
nbrpts <- length(age)
nbrpts
```

2. Find the Reciprocal of the values of age.

```
reciprocal_age <- 1 / age
reciprocal_age
```

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

```
new_age <- c(age, 0, age)
new_age
```

4. Sort the values for age.

```
sort(age)
```

5. Find the minimum and maximum value for age.

```
min(age)
max(age)
```

6. Set up a vector 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)
```

```
nmbrofdtps <- length(data)
nmbrofdtps
```

7. Generate a new vector for data where you double every value of the data.

```
newData <- 2 * data
newData
```

8. Generate a sequence for the following scenario.

8.1 Integers from 1 to 100.

```
Int <- seq(1:100)
Int
```

8.2 Numbers from 20 to 60.

```
Num <- seq(from=20,to=60)
Num
```

8.3 Mean of numbers from 20 to 60.

```
Num <- seq(from=20, to=60)
xNum <- mean(Num)
xNum
```

8.4 Sum of numbers from 51 to 91.

```
sNum <- sum(51:91)
sNum
```

8.5 Integers from 1 to 1000.

```
sInt <- seq(1:1000)
sInt
```

a. How many data points from 8.1 to 8.4?

```
dtpts <- length(c(Int, Num, xNum, sNum))

dtpts
```

c. For 8.5, find only the maximum data points until 10.

```
mxdtpts <- Int[1:10]
mxdtpts
length(mxdtpts)
```

9. Print a vector with the integers between 1 and 100 that are not divisible by 3, 5 and 7 using filter option.

```
Filter(function(i) { all(i %% c(3,5,7) != 0) }, seq(100))
```

10. Generate a sequence backwards of the integers from 1 to 100.

```
reve <- rev(seq(1:100))
reve
```

11. List all the natural numbers below 25 that are multiples of 3 or 5.

```
x <- Filter(function(i) {any(i %% c(3,5) ==0)}, seq(24))
x
Sumofx <- sum(x)
Sumofx
```

a. How many data points from 10 to 11?

```
dtpt <- length(c(reve, x, Sumofx))
dtpt
```

12.

```
x <- {0 + x + 5 + }
```

13.

```
score <- c(72, 86, 92, 63, 88, 89, 91, 92, 75, 75,77.)

s2 <- score[2]
s2
s3 <- score[3]
s3
```

14. *Create a vector a = c(1,2,NA,4,NA,6,7).

```
a <- c(1, 2 ,NA, 4, NA, 6, 7)
print(a,na.print="-999")
print(a,na.print="-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."))
(R.version.string)
```