Carl Frederick Delicana
BSIT-2A
#Worksheet 1

#Given Variable

```
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)
```

#given

#a

#Answer : 35 data points(age)

#b.
#Outputs
```
age
```
#Output : [1] 34 28 22 36 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50
#[22] 37 46 25 17 37 42 53 41 51 35 24 33 41

#2. Find the reciprocal of the values for age.
```
reciprocal <- function(age) vec <- 1/age
rage <- reciprocal(age)
rage
```
#Answer:
#rage
#[1] 0.02941176 0.03571429 0.04545455 0.02777778
#[5] 0.03703704 0.05555556 0.01923077 0.02564103
#[9] 0.02380952 0.03448276 0.02857143 0.03225806
#[13] 0.03703704 0.04545455 0.02702703 0.02941176
#[17] 0.05263158 0.05000000 0.01754386 0.02040816
#[21] 0.02000000 0.02702703 0.02173913 0.04000000
#[25] 0.05882353 0.02702703 0.02380952 0.01886792
#[29] 0.02439024 0.01960784 0.02857143 0.04166667
#[33] 0.03030303 0.02439024

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

```
# What happen to the new_age?
new_age <- c(age, 0, age)
new_age

#Answer: it display random numbers and 0 it's the center

#4. Sort the values for age.
sort(age)

#Write the R code and its output.
#17 18 19 20 22 22 24 25 27 27 28 29 31 33 34 34 35 35 36 37 37
#[22] 37 39 41 41 42 42 46 49 50 51 52 53 57

#5. Find the minimum and maximum value for age.
#Write the R code and its output.
max(age) # the output is 57
min(age) # the output is 17

#6. Set up a vector named data, consisting of 2.4, 2.8, 2.1, 2.5, 2.4, 2.2, 2.5, 2.3,
#2.5, 2.3, 2.4, and 2.7.

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. How many data points?
# Answer: 12

#b Write its R code and its output
Data
#Output : 2.4 2.8 2.1 2.5 2.4 2.2 2.5 2.3 2.5 2.3 2.4 2.7

#7. Generates a new vector for data where you double every value of the data. | What
happen
#to the 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)

2*Data
#Answer when i use 2*Data the answer of the given vector was been doubled
#4.8 5.6 4.2 5.0 4.8 4.4 5.0 4.6 5.0 4.6 4.8 5.4

# 8.1 Integers from 1 to 100
```

```
#Answer:
seq(1:100)

#8.2 Numbers from 20 to 60
x <- 20:60
print(seq(x))
#8.3 Mean of numbers from 20 to 60
print(mean(x))
#*8.4 Sum of numbers from 51 to 91
print(sum(51:91))

#*8.5 Integers from 1 to 1,000
seq(1:1000)

#a. How many data points from 8.1 to 8.4?_____
#Answer: 43 data points are in 8.1 to 8.4
#b. Write the R code and its output from 8.1 to 8.4.
seq(1:100) #Output is number sequence from 1-100.

x <- 20:60
print(seq(x))#Output is numbers 1 -41.
print(mean(x))#output is 40
print(sum(51:91))# output is 2911

#c. For 8.5 find only maximum data points until 10.
m <- seq(1:10)
max(m)
#Answer is 10



#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.
#Write the R code and its output.
seq(from = 100, to = 1)
```

```
# 11.   List all the natural numbers below 25 that are multiples of 3 or 5.
sum((1:25)[((1:25)%%3 == 0) | ((1:25)%%5 == 0)])

#a. How many data points from 10 to 11?
101
#b. Write the R code and its output from 10 and 11.
seq(from = 100, to = 1) #output is numbers from 100 to 1
sum((1:25)[((1:25)%%3 == 0) | ((1:25)%%5 == 0)])#output is 168
#12 Enter this statement:
# { x <- 0+ x + 5 + }
#Answer : Error

#13
score <- c(72, 86, 92, 63, 88, 89, 91, 92, 75,75, 77)
# Answer: x[2] = 86 x[3] = 92

#14
a <- c(1,2,NA,4,NA,6,7)
print(a,na.print="-999")

#15
class(x) <- "foo"
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)
```