Rworksheet#2_sicabalo

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2022-10-23

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###Worksheet 2

```
#1.

#a.
operator <- seq(-5, 5)
operator

#R code:  operator <- seq(-5, 5)
#operator

#Output: [1] -5 -4 -3 -2 -1  0  1  2  3  4  5
#Answer: It displayed the a sequence from -5 to 5.

#b.
x <- 1:7
x

#Answer: The value of x are 1, 2, 3, 4, 5, 6, 7.
```

```
#2.

#a.
seq(1, 3, by=0.2)

#R code: seq(1, 3, by=0.2)

#Code: [1] 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0
#Anser: It created a sequence from 1 to 3 by 0.2. It adds 0.2 until it reaches to 3.
```

```
#3.

#a. Access 3rd element, what is the value?
ages <- 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, 43, 53, 41, 51, 35,
24,33, 41, 53, 40, 18, 44, 38, 41, 48, 27, 39, 19, 30, 61, 54, 58, 26,
18)
ages
ages[3]

#Anwser: The value of the 3rd element is 22.
```

```r
#b. Access 2nd and 4th element, what are the values?
ages[2]
ages[4]

#Anwser: The values of the 2nd and 4th element are 28 and 36.

#c. Access all but the 1st element is not included. Write the R code and its output.
ages
ages[2:50]

#Answer:
```

```r
#4.
#a.
x <- c("first"=3, "second"=0, "third"=9)
#The output is displaying first and third which is 3 and 9.
#b.
x[c("first", "third")]
#Output: first third
#        3     9
```

```r
#5. Create a sequence x from -3:2.
#a. Modify 2nd element and change it to 0;
x <- seq(-3,2)
x[2] <- 0
x
#Describe the output.
#The second number will change to zero.
#b.Write the code and its output.
x <- seq(-3,2)
x
#x[2]
#[1] -3 -2 -1  0  1  2
#[1] -2
```

```r
#6. *The following data shows the diesel fuel purchased by Mr. Cruz.

month <- c("January", "Febraury", "March", "April", "May", "June")
price_per_liter <- c(52.50, 57.25, 60.00, 65.00, 74.25, 54.00)
purchase_quantity <- c(25, 30, 40, 50, 10, 45)

#a. Create a data frame for month, price per liter (php) and purchase-quantity (liter).
#Write the codes.

data_frame <- data.frame(month, price_per_liter, purchase_quantity)
data_frame

#b. What is the average fuel expenditure of Mr. Cruz from Jan to June? Note: Use weighted.mean(liter, p

weighted.mean(price_per_liter, purchase_quantity)
```

```r
#7.
#a.
data <- c(length(rivers), sum(rivers), mean(rivers), median(rivers), var(rivers), sd(rivers), min(river
data
```

```
#b. What are the results?
#[1]    141.0000  83357.0000    591.1844    425.0000 243908.4086
#[6]    493.8708    135.0000   3710.0000

#c. Write the code and its outputs.
data <- c(length(rivers), sum(rivers), mean(rivers), median(rivers), var(rivers), sd(rivers), min(rivers
data
```

```
#8.
#a.
power_ranking <- 1:25
celebrity_name <- c("Tom Cruise", "Rolling Stones", "Orpah Winfrey", "U2", "Tiger Woods", "Steven Spiell
pay <- c(67, 90, 225, 110, 90, 332, 302, 41, 52, 88, 55, 44, 55, 40, 233, 34, 40, 47, 75, 25, 39, 45, 3

ranking <- data.frame(power_ranking, celebrity_name, pay)
ranking

#b.
power_ranking [19] <- 15
pay [19] <- 90
\
#c.
power <- data.frame(power_ranking, celebrity_name, pay)
power
```