RWorksheet_rocillo#2

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1. Create a vector using: operator

a. Sequence from -5 to 5. Write the R code and its output. Describe its output

```
sequence <- (-5: 5)
print(sequence)
```

```
##  [1] -5 -4 -3 -2 -1  0  1  2  3  4  5
```

Describe its output -The output shows number from -5 to 5

b. x <- 1:7. What ill be the value of x?

```
  x <- 1: 7
print(x)
```

```
## [1] 1 2 3 4 5 6 7
```

2. Create a vector using seq() function

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

```
  sequence <- seq(1, 3, by=0.2)
  print(sequence)
```

```
##  [1] 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0
```

Describe the output - The output shows the number starting 1 to 3 in 0.2 sequence.

3. A factor has a census of its workers. There are 50 workers in total. The following list shows their ages.

```
  workers_age <- c(34, 28, 22, 36, 27, 18, 52, 39, 42, 29, 35, 31, 27, 22, 37, 34, 19, 20, 57, 49, 50, 3
```

a. Access the 3rd element, what is the value?

```
  third <- workers_age[3]
  print(third)
```

```
## [1] 22
```

b. Access the 2nd and 4th element, what are the values?

```
 second <- workers_age[2]
 fourth <- workers_age[4]
 print(second)
```

```
## [1] 28
```

```
 print(fourth)
```

```
## [1] 36
```

c. Access all but the 4th and 12th element is not included.

```
  all <- workers_age[c(- 4, -12)]
  print(all)
```

```
##  [1] 34 28 22 27 18 52 39 42 29 35 27 22 37 34 19 20 57 49 50 37 46 25 17 37 43
## [26] 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

4. Create a vector x <- c("first"=3, "second"=0, "third"=9). Then named the vector, names(x).

```
  x <- c("first" = 3, "second" = 0, "third" = 9)
print(x)
```

```
##  first second  third
##      3      0      9
```

a. Print the result. Then access x[c("first", "third")]

```
  num <- x[c("first", "third")]
print(num)
```

```
## first third
##     3     9
```

Describe the output. - The output shows how to name a vector and how to accessthe elements using their names.

5. Create a sequence x from -3:2.

a. Modify 2nd element and change it to 0; x[2] <- 0 x

```
x <- -3:2
x[2] <- 0
print(x)
```

```
## [1] -3  0 -1  0  1  2
```

Describe the output. -The output shows a number from -3 to 2 but the second in the sequence become 0 as it was stated in the code the 2nd in the sequence of x will result to 0.

6. The following data shows the diesel fuel purchased by Mr. Cruz.

a. Create a data frame for month, price liter (php) and purchase-quality(liter). Write the R scripts and its output.

b. What is the average fuel expenditure of Mr. Cruz from Jan to June? Notes: Use 'weighted.mean(liter, purchase).

7. R has actually lots of built-in datasets. For example