

RWorksheet_Redosendo#2.Rmd

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```
#1 (a)
x <- -5:5
x
```

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

```
#Output : [1] -5 -4 -3 -2 -1 0 1 2 3 4 5
#Description : A sequence of consecutive integers from -5 up to 5.
```

```
#1 (b)
x <- 1:7
x
```

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

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

```
#2
vec2 <- seq(1, 3, by = 0.2)
vec2
```

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

```
#Output : [1] 1.0 1.2 1.4 1.6 1.8 2.0 2.2 2.4 2.6 2.8 3.0
#Description : Creates a sequence starting at 1, ending at 3, increasing by 0.2 each step.
```

```
#3 A factory has a census of its workers. There are 50 workers in total. The following list shows their
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, 43, 53, 41, 51, 35,
        24, 33, 41, 53, 40, 18, 44, 38, 41, 48, 27, 39, 19, 30, 61, 54, 58, 26,
        18.)
```

```
print(age[3])
```

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

```
print(age[c(2,4)])
```

```
## [1] 28 36
```

```
print(age[-1])
```

```
## [1] 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
## [26] 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26 18
```

```
#Output
#[1] 22
#[1] 28 36
```

```
#[1] 28 22 36 27 18 52 39 42 29 35 31 27 22 37 34 19 20 57 49 50 37 46 25 17
#[25] 37 43 53 41 51 35 24 33 41 53 40 18 44 38 41 48 27 39 19 30 61 54 58 26
#[49] 18
```

```
#4
x <- c("first"=3, "second"=0, "third"=9)
x
```

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

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

```
#5
x <- -3:2
x
```

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

```
x[2] <- 0
#Output : [1] -3 -2 -1 0 1 2
#Description : The 2nd element (-2) is changed to 0.
```

```
#6
month <- c("jan","feb","march","april","may","june")
price <- c(52.50,57.25,60.00,65.00,74.25,54.00)
liters <- c(25,30,40,50,10,45)
```

```
fuel_data <- data.frame(month, price, liters)
fuel_data
```

```
## month price liters
## 1 jan 52.50 25
## 2 feb 57.25 30
## 3 march 60.00 40
## 4 april 65.00 50
## 5 may 74.25 10
## 6 june 54.00 45
```

```
avg_exp <- weighted.mean(price, liters)
avg_exp
```

```
## [1] 59.2625
```

```
#Output : [1] 59.2625
#Description : The average fuel expenditure of Mr. Cruz from Jan to June is 59.2625
```

```
#7
data <- c(length(rivers),
          sum(rivers),
          mean(rivers),
          median(rivers),
          var(rivers),
          sd(rivers),
          min(rivers),
          max(rivers))
```

```
data
```

```
## [1] 141.0000 83357.0000 591.1844 425.0000 243908.4086 493.8708
## [7] 135.0000 3710.0000
```

```
#Output :
```

```
#[1] 141.0000 83357.0000 591.1844 425.0000 243908.4086 493.8708
#[7] 135.0000 3710.0000
```

```
#8
```

```
celebrity <- c("Oprah Winfrey","Tiger Woods","J.K. Rowling")
power_ranking <- c(1,2,3)
pay <- c(260,90,40)
```

```
#b
```

```
power_ranking[3] <- 15
pay[3] <- 90
```

```
celebrity_data <- data.frame(celebrity, power_ranking, pay)
celebrity_data
```

```
##      celebrity power_ranking pay
## 1 Oprah Winfrey           1 260
## 2   Tiger Woods           2  90
## 3   J.K. Rowling          15  90
```

```
#c Interpret the data.
```

```
#J.K. Rowling's ranking changed to 15 and her pay updated to 90.
```

```
#Output
```

```
#Celebrity      power_ranking      pay
#Oprah Winfrey           1      260
#Tiger Woods             2       90
#J.K. Rowling            15       90
```