

# 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

```