# RWorksheet_Española#2

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#Worksheet-2 in R

```
#1. Create a vector using : #operator

#a.
 operator <- c(-5:5)
  operator
```

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

```
#The output displays from sequence number from -5 up until 5.



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

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

```
 #The value of x are sequence from 1 to 7.
```

```
#2. * Create a vector using #seq() function
#a.
vector <- seq(1, 3, by=0.2)
vector
```

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

```
#The output generates a sequence of numbers from 1 to 3 with 0.2 interval.
```

```
#3.A factory has a census of #its workers. There are 50 #workers in total. The #following list  shows t
workers_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, 4
              18)
workers_Age
```

```
##  [1] 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
## [26] 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
```

```
#a.
workers_Age[3]
```

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

```
#b.
workers_Age[2]
```

```
## [1] 28
workers_Age[4]

## [1] 36
#c
workers_Age[2:49]

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

##  first second  third
##      3      0      9
  x[c("first", "third")]

## first third
##     3     9
  #The output displays the value of the "first" and the "third".

#5. Create a sequence x from #-3:2.
x <- c(-3:2)
x

## [1] -3 -2 -1  0  1  2
#a.
x[2] <- 0
x

## [1] -3  0 -1  0  1  2
#The output displays sequence fro. -3 to 2,  and the value of 2nd element which is -2 changed to 0, the

#6. *The following data shows #the diesel fuel purchased by #Mr. Cruz.
#a.
diesel <- data.frame(Month = c("Jan", "Feb", "March", "April", "May", "June"),
  Price = c("52.50", "57.25", "60.00", "65.00", "74.25", "54.00"),
  Purchase = c("25", "30", "40", "50", "10", "45")
)
diesel

##    Month Price Purchase
## 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
#b
price <- c(52.50, 57.25, 60.00, 65.00, 74.25, 54.00)
price

## [1] 52.50 57.25 60.00 65.00 74.25 54.00
```

```r
quantity <- c(25, 30, 40, 50, 10, 45)
quantity
```

```
## [1] 25 30 40 50 10 45
```

```r
weighted.mean(price, quantity)
```

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

```r
#7.  R has actually lots of #built-in datasets. For #example, the rivers data #"gives the lengths (in m
data <- c(length(rivers), sum(rivers), mean(rivers), median(rivers), var(rivers), sd(rivers), min(rivers
data
```

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

```r
#8. The table below gives the #25 most powerful celebrities #and their annual pay as ranked #by the edi

#a
PowerRanking <- 1:25
CelebrityName <- c("Tom Cruise", "Rolling Stones", "Oprah Winfrey", "U2",
                   "Tiger Woods", "Steven Spielberg", "Howard Stern", "50 Cent", "Cast of the sopranos"
Pay <- c(67, 90, 225, 110, 90, 332, 302, 41, 52, 88, 55, 44, 55, 40,
         233, 34, 40, 47, 75, 25, 39, 45, 32, 40, 31)

Data_Ranking <- data.frame(PowerRanking, CelebrityName, Pay)
Data_Ranking
```

```
##    PowerRanking         CelebrityName Pay
## 1             1            Tom Cruise  67
## 2             2        Rolling Stones  90
## 3             3         Oprah Winfrey 225
## 4             4                    U2 110
## 5             5           Tiger Woods  90
## 6             6      Steven Spielberg 332
## 7             7          Howard Stern 302
## 8             8               50 Cent  41
## 9             9  Cast of the sopranos  52
## 10           10             Dan Brown  88
## 11           11     Bruce Springsteen  55
## 12           12          Donald Trump  44
## 13           13          Muhammad Ali  55
## 14           14         Paul McCartney 40
## 15           15          George Lucas 233
## 16           16            Elton John  34
## 17           17       David Letterman  40
## 18           18         Phil Mickelson 47
## 19           19           J.K Rowling  75
## 20           20            Bradd Pitt  25
## 21           21         Peter Jackson  39
## 22           22       Dr. Phil McGraw  45
## 23           23             Jay Lenon  32
## 24           24            Celine Dion  40
## 25           25           Kobe Bryant  31
```

```
#b
PowerRanking [19] <- 15
PowerRanking
```

```
## [1]  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 15 20 21 22 23 24 25
```

```
Pay [19] <- 90
Pay
```

```
## [1]  67  90 225 110  90 332 302  41  52  88  55  44  55  40 233  34  40  47  90
## [20]  25  39  45  32  40  31
```

```
Magazine_Ranking <- data.frame(PowerRanking, CelebrityName, Pay)
Magazine_Ranking
```

```
##    PowerRanking        CelebrityName Pay
## 1             1           Tom Cruise  67
## 2             2       Rolling Stones  90
## 3             3        Oprah Winfrey 225
## 4             4                   U2 110
## 5             5          Tiger Woods  90
## 6             6     Steven Spielberg 332
## 7             7         Howard Stern 302
## 8             8              50 Cent  41
## 9             9 Cast of the sopranos  52
## 10           10            Dan Brown  88
## 11           11     Bruce Springsteen  55
## 12           12         Donald Trump  44
## 13           13         Muhammad Ali  55
## 14           14        Paul McCartney  40
## 15           15         George Lucas 233
## 16           16           Elton John  34
## 17           17      David Letterman  40
## 18           18       Phil Mickelson  47
## 19           15          J.K Rowling  90
## 20           20           Bradd Pitt  25
## 21           21        Peter Jackson  39
## 22           22      Dr. Phil McGraw  45
## 23           23            Jay Lenon  32
## 24           24          Celine Dion  40
## 25           25          Kobe Bryant  31
```