

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
```

#b.

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

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

#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, 40,
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
```

```
#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
```

```
#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
```

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

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

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

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

```
#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
```

#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