

# Fugnsi & Operator & List

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## Resume belajar R - Fungsi & Operator & List

Berikut dibawah source code yang telah kita praktekkan hari ini. Semoga bermanfaat.

```
> data = c(1,6,9,4,45,63,6,1,4)
>
> max(data)
[1] 63
> min(data)
[1] 1
>
> sqrt(5)
[1] 2.2361
> sqrt(data)
[1] 1.0000 2.4495 3.0000 2.0000 6.7082 7.9373 2.4495 1.0000 2.0000
>
> sort(data)
[1] 1 1 4 4 6 6 9 45 63
> sort(data, decreasing = true)
Error in sort(data, decreasing = true) : object 'true' not found
> sort(data, decreasing = TRUE)
[1] 63 45 9 6 6 4 4 1 1
>
>
> sort(data)
[1] 1 1 4 4 6 6 9 45 63
>
> c(100, 1200)
[1] 100 1200
>
> c(sqrt(5))
[1] 2.2361
>
> c(sqrt(2), sqrt(5))
[1] 1.4142 2.2361
>
>
> rep(2:9)
[1] 2 3 4 5 6 7 8 9
>
> rep(1:10, 3)
[1] 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5 6 7 8 9 10 1 2 3 4 5
```

```

[26] 6 7 8 9 10
> rep(sort(data, decreasing = TRUE), 2)
[1] 63 45 9 6 6 4 4 1 1 63 45 9 6 6 4 4 1 1
>
> rep(10:1)
[1] 10 9 8 7 6 5 4 3 2 1
>
> rep(10:1) # pengulangan decreasing
[1] 10 9 8 7 6 5 4 3 2 1
>
> seq(from = 1, to = 10, by = 2)
[1] 1 3 5 7 9
> seq(from = 1, to = 10, by = 4)
[1] 1 5 9
>
> table(data)
data
1 4 6 9 45 63
2 2 2 1 1 1
>
> kategori_produk = c("Kosmetik", "Fashion", "Olahraga", "Fashion")
> factor(kategori_produk)
[1] Kosmetik Fashion Olahraga Fashion
Levels: Fashion Kosmetik Olahraga
> levels(factor(kategori_produk))
[1] "Fashion" "Kosmetik" "Olahraga"
>
> barplot(kategori_produk)
Error in -0.01 * height : non-numeric argument to binary operator
> barplot(table(kategori_produk))
> kategori_produk[5] = "Fashion"
> barplot(table(kategori_produk))
>
> plot(table(kategori_produk))
> plot(table(data))
>
>
> i = 10
> i < 10
[1] FALSE
> i == 10
[1] TRUE
> i >= 10
[1] TRUE
>
>
> (i <= 10) && (i==10)
[1] TRUE
> (i <= 10) || (i==10)
[1] TRUE
>
>
> matrix(nrow = 2, ncol = 2)

```

```

      [,1] [,2]
[1,]    NA    NA
[2,]    NA    NA
> View(z)
> matrix(nrow = 2, ncol = 2)
      [,1] [,2]
[1,]    NA    NA
[2,]    NA    NA
> X = matrix(nrow = 2, ncol = 2)
>
> X[2,2] <- 10
>
> X[1,1] = 4
> (i <= 10) || (i==10)
[1] TRUE
>
> X
      [,1] [,2]
[1,]     4    NA
[2,]    NA    10
> X[1,2] = 7
> X
      [,1] [,2]
[1,]     4     7
[2,]    NA    10
> X[2,1] = 9
> X
      [,1] [,2]
[1,]     4     7
[2,]     9    10
>
>
>
> X[2,1]
[1] 9
>
> Z = matrix(data, nrow = 2, ncol = 2)
Warning message:
In matrix(data, nrow = 2, ncol = 2) :
  data length [9] is not a sub-multiple or multiple of the number of rows [2]
> Z = matrix(data, nrow = 3, ncol = 2)
Warning message:
In matrix(data, nrow = 3, ncol = 2) :
  data length [9] is not a sub-multiple or multiple of the number of columns [2]
> data[10] = 5
> Z = matrix(data, nrow = 2, ncol = 2)
> Z
      [,1] [,2]
[1,]     1     9
[2,]     6     4
>
> Z = matrix(data, nrow = 3, ncol = 2)
Warning message:

```

```

In matrix(data, nrow = 3, ncol = 2) :
  data length [10] is not a sub-multiple or multiple of the number of rows [3]
> Z = matrix(data, nrow = 2, ncol = 3)
Warning message:
In matrix(data, nrow = 2, ncol = 3) :
  data length [10] is not a sub-multiple or multiple of the number of columns [3]
> Z = matrix(data, nrow = 3, ncol = 3)
Warning message:
In matrix(data, nrow = 3, ncol = 3) :
  data length [10] is not a sub-multiple or multiple of the number of rows [3]
> Z = matrix(data, nrow = 2, ncol = 2)
> Z
      [,1] [,2]
[1,]    1    9
[2,]    6    4
>
> Z + X
      [,1] [,2]
[1,]    5   16
[2,]   15   14
> View(X)
>
> rowSums(X)
[1] 11 19
> colSums(X)
[1] 13 17
> X
      [,1] [,2]
[1,]    4    7
[2,]    9   10
> rowMeans(X)
[1] 5.5 9.5
>
>
>
> dataList = list(data, kategori_produk)
> mode(data)
[1] "numeric"
> mode(dataList)
[1] "list"
>
> dataList
[[1]]
 [1]  1  6  9  4 45 63  6  1  4  5

[[2]]
[1] "Kosmetik" "Fashion"  "Olahraga" "Fashion"  "Fashion"

> names(dataList)
NULL
> dataList = list(dataAngka = data, produk = kategori_produk)
> names(dataList)
[1] "dataAngka" "produk"

```

```

>
> length(dataList)
[1] 2
>
> dataList[2]
$produk
[1] "Kosmetik" "Fashion" "Olahraga" "Fashion" "Fashion"

> dataList$dataAngka[6]
[1] 63
>
> dataList$produk[1]
[1] "Kosmetik"
>
> dataList[-c(2)]
$dataAngka
[1] 1 6 9 4 45 63 6 1 4 5

> dataList = dataList[-c(2)]
> length(dataList)
[1] 1
> dataList[3]
$<NA>
NULL

```