Ex002_Faculdade.R

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```r
# 1 )

1:5
```

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

```r
5:1
```

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

```r
seq(1,20,5)
```

```
## [1]  1  6 11 16
```

```r
# seq(20,1,5)
seq(20,1,-5)
```

```
## [1] 20 15 10  5
```

```r
# 2 )

rep(6, 8)
```

```
## [1] 6 6 6 6 6 6 6 6
```

```r
rep(c(2,3), 5)
```

```
##  [1] 2 3 2 3 2 3 2 3 2 3
```

```r
rep(c(2,3,5), 5)
```

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

```r
c(rep(2,4), rep(3,5))   # Está juntando todos os valres da repetição usando a função c
```

```
## [1] 2 2 2 2 3 3 3 3 3
```

```r
c(rep(1,5), rep(2,3), rep(3,5))
```

```
##  [1] 1 1 1 1 1 2 2 2 3 3 3 3 3
```

```r
# 3 )

a <- 5:10
print(a)
```

```
## [1]  5  6  7  8  9 10
```

```r
a[3]
```

```
## [1] 7
```

```r
a[1:4]
```

```
## [1] 5 6 7 8
```

```r
a[c(1,4)]     # Se usar mais que 1 use a função c
```

```
## [1] 5 8
```

```r
a[a>7]
```

```
## [1]  8  9 10
```

```r
a[a<7]
```

```
## [1] 5 6
```

```r
a[c(-2,-3)]
```

```
## [1]  5  8  9 10
```

```r
# 4 )

b <- seq(1, 11, 2)
print(b)
```

```
## [1]  1  3  5  7  9 11
```

```r
matriz_b <- matrix(b,nrow = 3, ncol = 2, byrow = T)
print(matriz_b)
```

```
##      [,1] [,2]
## [1,]    1    3
## [2,]    5    7
## [3,]    9   11
```

```r
matriz_b[1,2]
```

```
## [1] 3
```

```r
summary(matriz_b)
```

```
##        V1          V2
##  Min.   :1   Min.   : 3
##  1st Qu.:3   1st Qu.: 5
##  Median :5   Median : 7
##  Mean   :5   Mean   : 7
##  3rd Qu.:7   3rd Qu.: 9
##  Max.   :9   Max.   :11
```

```r
# 5 )

c <- matrix(1:20, ncol = 4)
print(c)
```

```
##      [,1] [,2] [,3] [,4]
## [1,]    1    6   11   16
## [2,]    2    7   12   17
## [3,]    3    8   13   18
## [4,]    4    9   14   19
## [5,]    5   10   15   20
```

```r
d <- cbind(c, 4:8)
print(d)
```

```
##      [,1] [,2] [,3] [,4] [,5]
## [1,]    1    6   11   16    4
## [2,]    2    7   12   17    5
## [3,]    3    8   13   18    6
## [4,]    4    9   14   19    7
## [5,]    5   10   15   20    8
```

```r
d <- rbind(d, 1:5)
print(d)
```

```
##      [,1] [,2] [,3] [,4] [,5]
## [1,]    1    6   11   16    4
## [2,]    2    7   12   17    5
## [3,]    3    8   13   18    6
## [4,]    4    9   14   19    7
## [5,]    5   10   15   20    8
## [6,]    1    2    3    4    5
```

```r
d[3,2]
```

```
## [1] 8
```

```r
d[,3]
```

```
## [1] 11 12 13 14 15  3
```

```r
d[3,]
```

```
## [1]  3  8 13 18  6
```

```r
# 6 )

y <- array(1:16, c(4,2,2))
print(y)
```

```
## , , 1
##
##      [,1] [,2]
## [1,]    1    5
## [2,]    2    6
## [3,]    3    7
## [4,]    4    8
##
## , , 2
##
##      [,1] [,2]
## [1,]    9   13
## [2,]   10   14
## [3,]   11   15
## [4,]   12   16
```

```r
y[2,2,2]
```

```
## [1] 14
```