Actividad 3

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Ejercicio 1

```
A <- matrix(rnorm(5*4), nrow = 5, ncol = 4)
B <- matrix(rnorm(4*2), nrow = 4, ncol = 2)
```

```
A %*% B
```

```
##            [,1]       [,2]
## [1,]  1.5608634 -0.1160897
## [2,] -2.9246900 -0.4664669
## [3,] -1.2348596 -3.1231544
## [4,]  0.6497465  1.7834214
## [5,] -0.6151749 -0.9902962
```

```
B * (C <- matrix(rnorm(4*2), nrow = 4, ncol = 2))
```

```
##           [,1]      [,2]
## [1,] 1.0071760 0.9251178
## [2,] 0.3828946 0.1461544
## [3,] 0.1371533 1.5317959
## [4,] 0.1303330 0.2953121
```

```
cbind(t(A), B)
```

```
##            [,1]       [,2]       [,3]       [,4]       [,5]        [,6]
## [1,] -0.2917423  1.9190872 -0.3522957 -0.3431722  0.9506593 -1.70670284
## [2,]  0.9318384  1.1974623 -2.1614046 -0.6374531  0.8142529  0.73830764
## [3,]  0.5157797 -0.8969945 -1.9913654  1.0637538 -0.3466653  0.06447832
## [4,]  0.7858853 -1.0939122 -0.2574545  1.0719797  0.9855050  0.43480387
##            [,7]
## [1,]  0.8118791
## [2,] -0.5908167
## [3,]  2.1368590
## [4,] -0.5482138
```

Ejercicio 2

```
x <- c(2, 5, 9)
y <- c(6, 5, 8)
z <- vector(mode = "numeric", length = length(x))
```

```r
for (i in 1:length(x)) {
   z[i] <- x[i] / y[i]
}
z
```

```
## [1] 0.3333333 1.0000000 1.1250000
```

```r
x <- c(2, 5, "-", 5, 3, "-")
for (i in 1:length(x)) {
   if (x[i] == "-") {
      x[i] <- NA
   }
}
x
```

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

```r
y <- c(3, 8, 5, 8, 7, 4)
y <- ifelse(y %% 2 == 1, 0, y)
```

Ejercicio 3

```r
x <- c(1, 2, 3)
y <- as.character(x)
mi_media <- function(x, ...) {
   if (is.numeric(x) == FALSE) {
      stop("Argument is not numeric")
   }
   media <- sum(x) / length(x)
   return(media)
}
mi_media(x)
```

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

```r
mean(x)
```

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

```r
mi_media(y)
```

```
## Error in mi_media(y): Argument is not numeric
```