

# Gráficos

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30/9/2020

## Gráficos

```
x = seq(1,5,1)
y = seq(4,8,1)
plot(x,y,type = "l", col = "purple", lwd = 2 ,
     lty = "dotdash")
legend("bottomright",
     legend = c("x","y"))
```

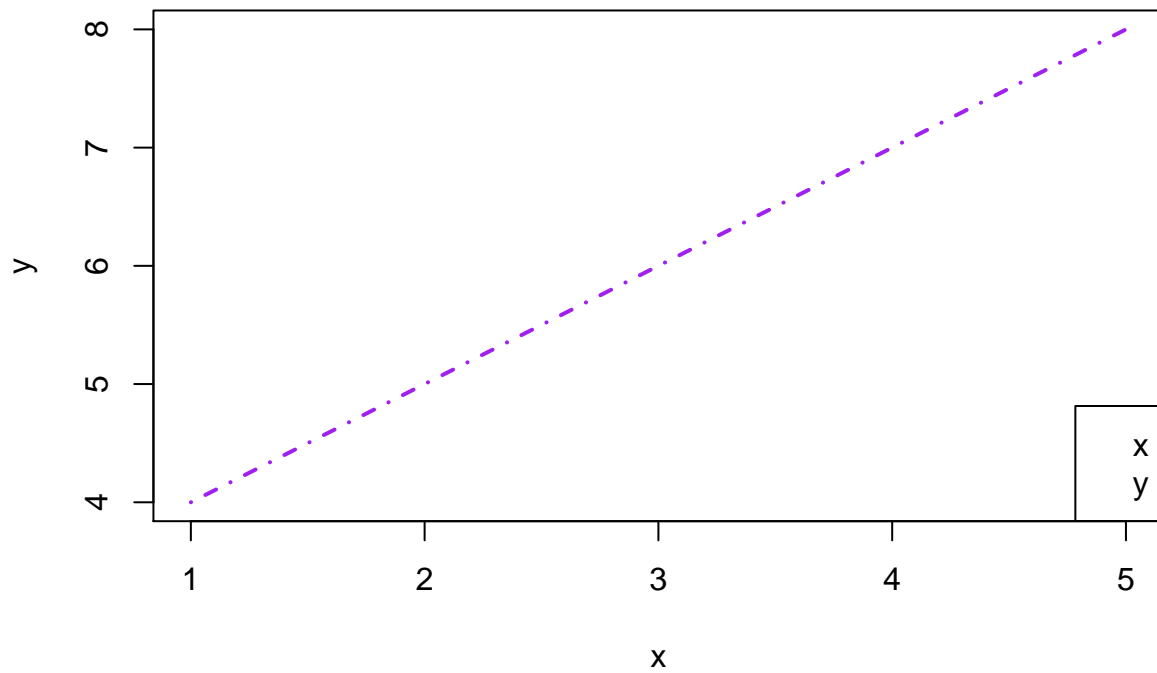


Figure 1: Primer Gráfico

```
plot(2^(1:6))
```

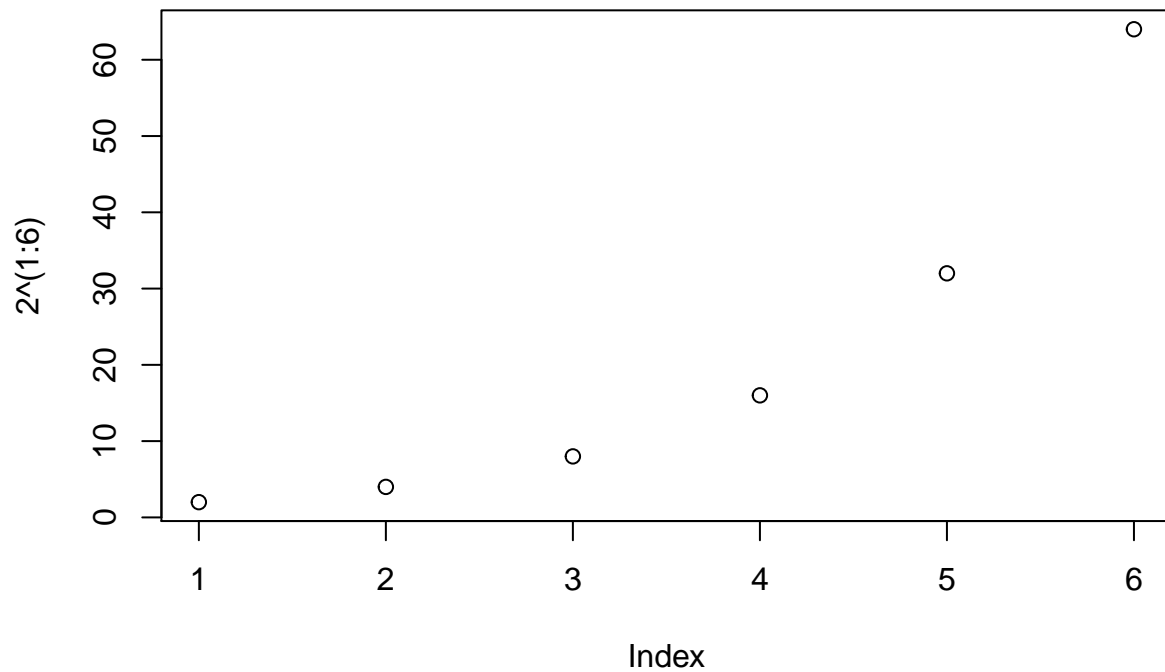


Figure 2: Segundo Gráfico

```
cuadrado = function(x){x^2}
plot(cuadrado, col = "green", lwd = 2 ,
     main = "Función cuadrado", xlim = c(-3,3),
     ylab = expression(f(x)))
legend("bottomleft",
      legend = c(expression(x^2)), col = "green",
      lwd = 2)
```

```
x = c(14,16,18,19)
raiz_cuadrada = function(x){sqrt(x)}
plot(raiz_cuadrada, main = "Raiz cuadrada",
     xlab = "x", ylab = expression(f(x)),
     type = "l", lty = "dotdash", lwd = 2,
     col = "orange")
legend("bottomright",
      legend = c(expression(sqrt(x))), lwd = 2,
      lty = "dotdash", col = "orange")
```

### Función cuadrado

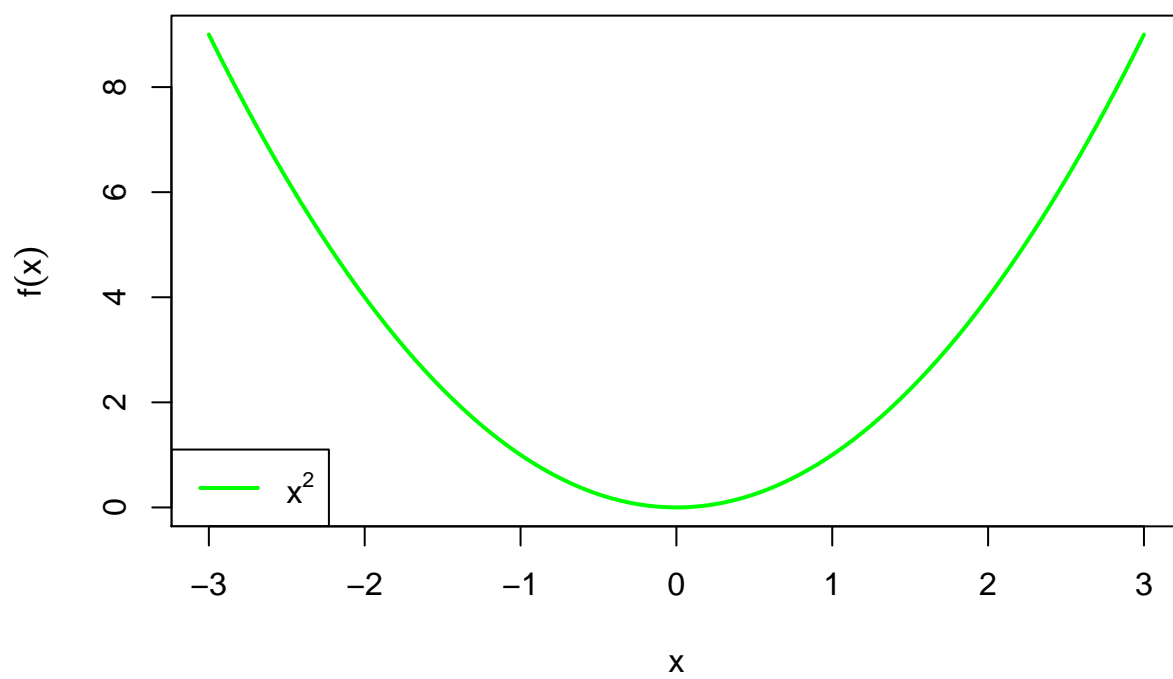


Figure 3: Tercer Gráfico

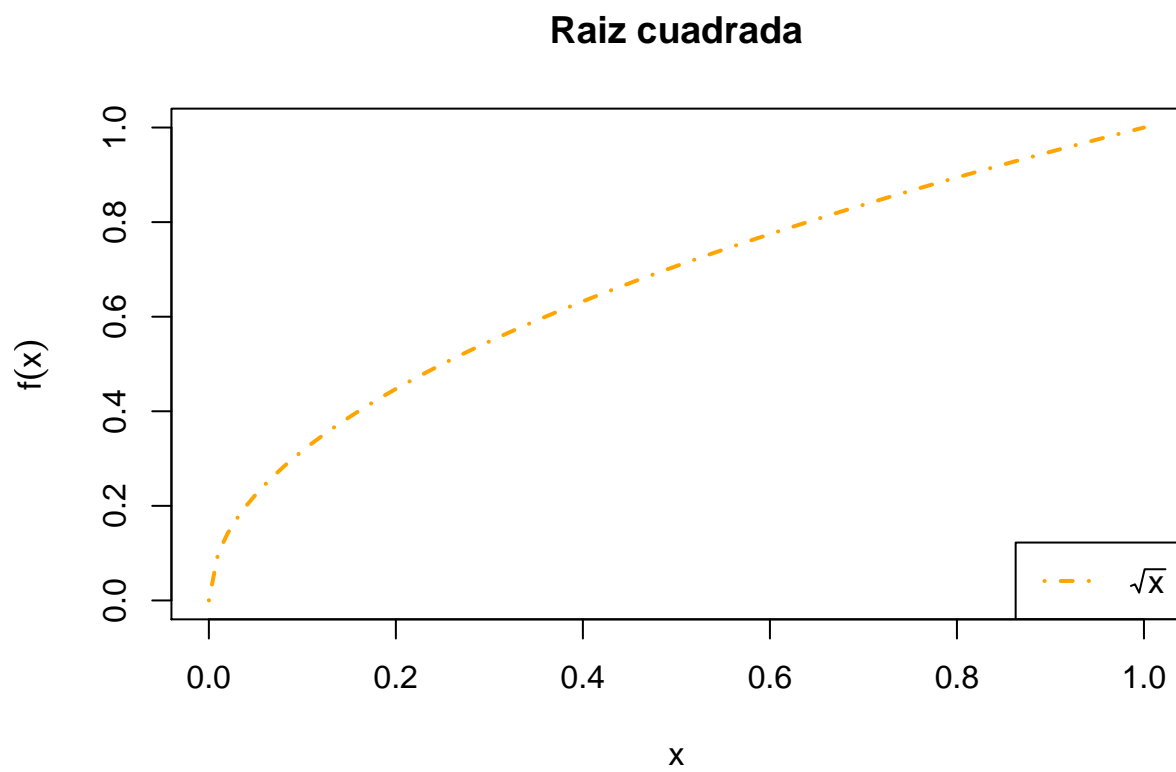
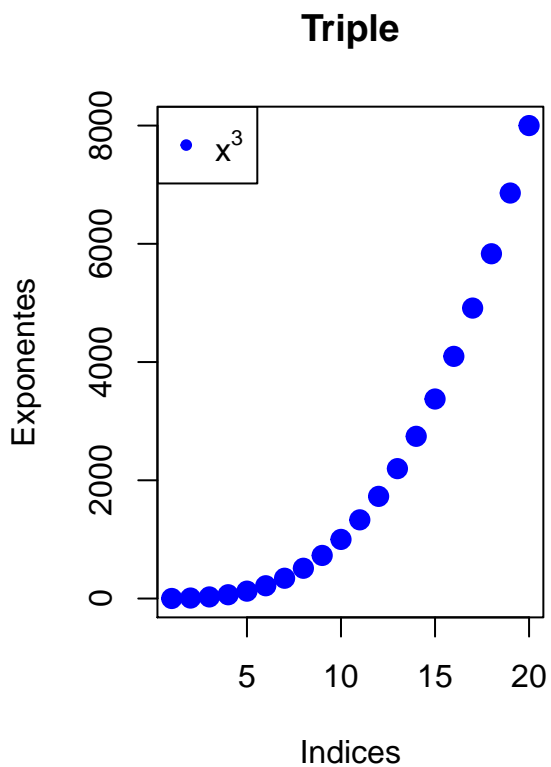
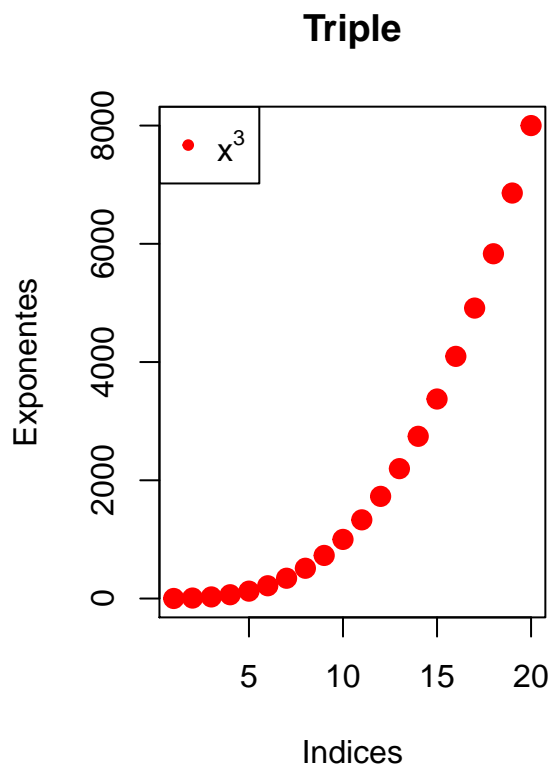


Figure 4: Cuarto Gráfico

## Parámetros

```
par(mfrow = c(1,2))
x = 1:20
triple = function(x){x ^ 3}
plot(triple(x),xlab = "Indices",
     ylab = "Exponentes",main = "Triple",
     pch = 20 , cex = 2,col = "red")
legend("topleft",
     legend = c(expression(x^3)),col = "red",
     pch = 20)
plot(triple(x),xlab = "Indices",
     ylab = "Exponentes",main = "Triple",
     pch = 20 , cex = 2,col = "blue")
legend("topleft",
     legend = c(expression(x^3)),col = "blue",
     pch = 20)
```



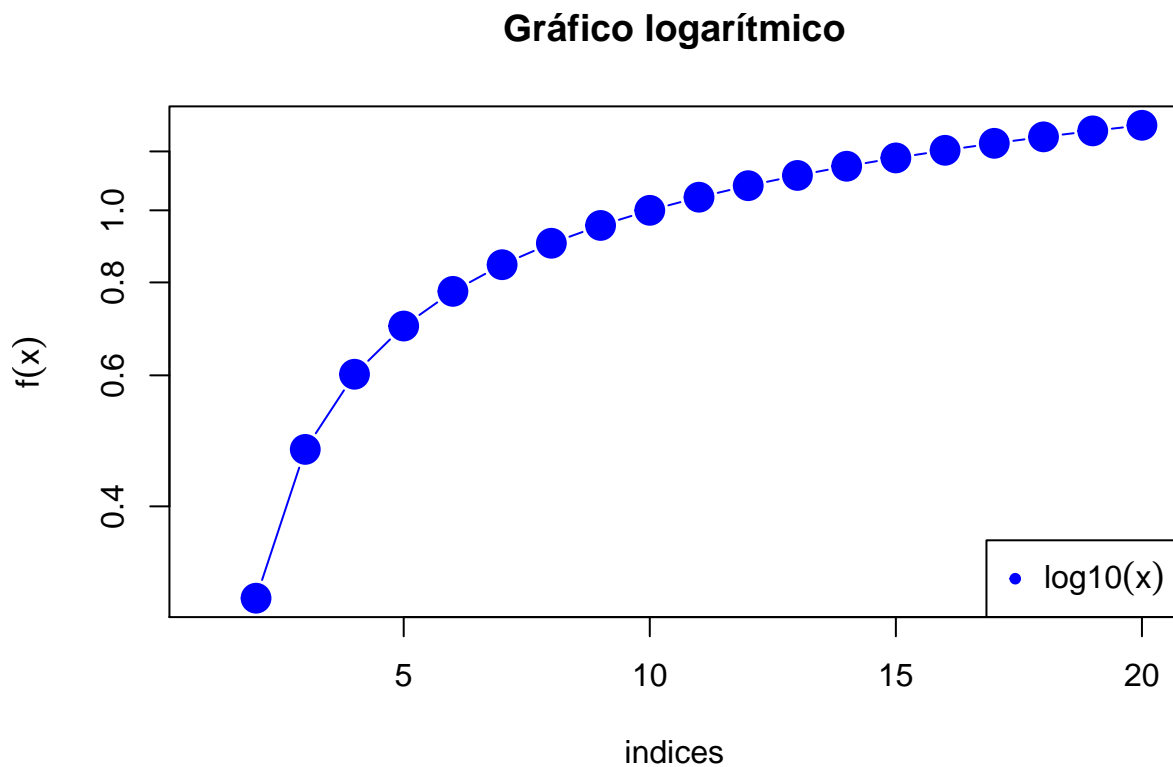
```
par(mfrow = c(1,1))
```

```
x = 1:20
logaritmico = function(x){log10(x)}
plot(logaritmico(x),xlab = "indices",
     ylab = expression(f(x)),log = "y",
```

```
main = "Gráfico logarítmico",pch = 20,
col = "blue",cex = 3,type = "b")
```

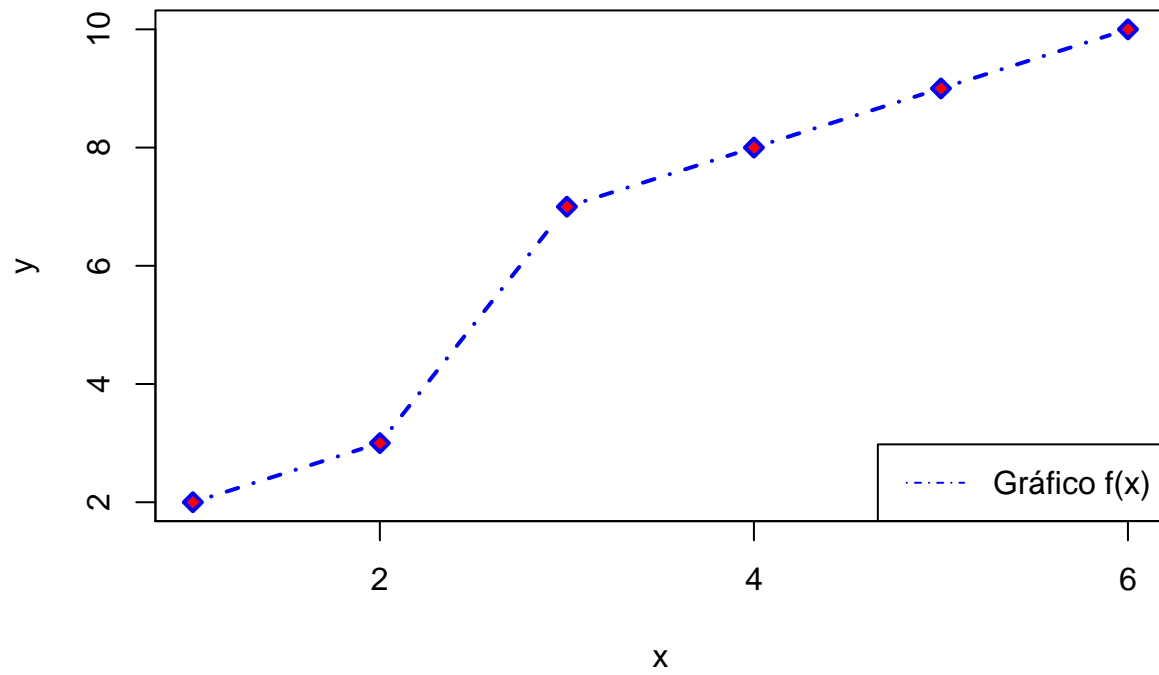
```
## Warning in xy.coords(x, y, xlabel, ylabel, log): 1 y value <= 0 omitted from
## logarithmic plot
```

```
legend("bottomright",
      legend = c(expression(log10(x))),
      col = "blue",pch = 20)
```



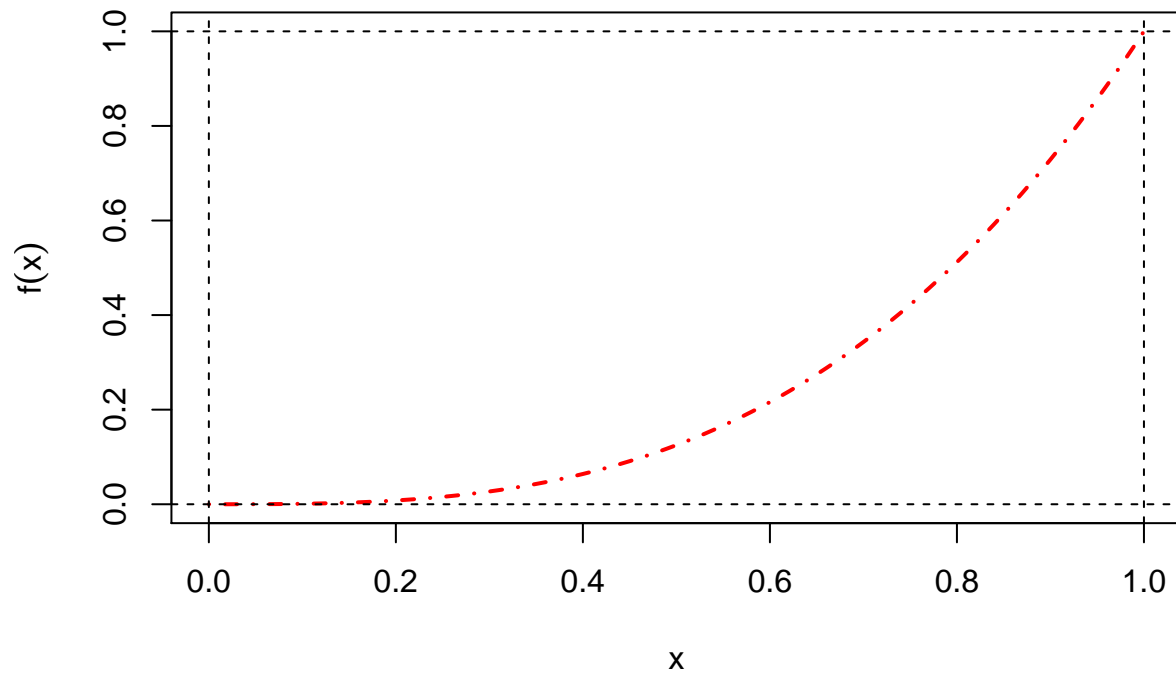
```
x = c(1,2,3,4,5,6)
y = c(2,3,7,8,9,10)
plot(x,y,main = "Gráfico 1",pch = 23,col = "blue",
     bg = "red",lty = "dotdash",type = "b",
     lwd = 2,xaxp = c(0,6,3),yaxp = c(0,10,5))
legend("bottomright",
      legend = c("Gráfico f(x)"),
      col = "blue",lty = "dotdash")
```

Gráfico 1



```
c = function(x){x^3}
plot(c,xlab = "x",ylab = expression(f(x)),
     main = "Grafico cubo",
     pch = 19 , lty = "dotdash",lwd = 2,
     col = "red")
abline(v = -2:2 , h = 0:6, lty = "dashed",
       col = "gray0")
```

## Grafico cubo



```
x = c(5*(1:10))
plot(x,c(exp(-x) + (-1) ^ x * x/2 * sin(x) ^ 2),
      xlab = "", ylab = "",lty = "dotdash",
      lwd = 2, col = "red",type = "b",
      main = "Gráfico con varios elementos")
segments(10,0,40,0, col = "red",lwd = 4)
```



**Gráfico con varios elementos**

