Tarea 6

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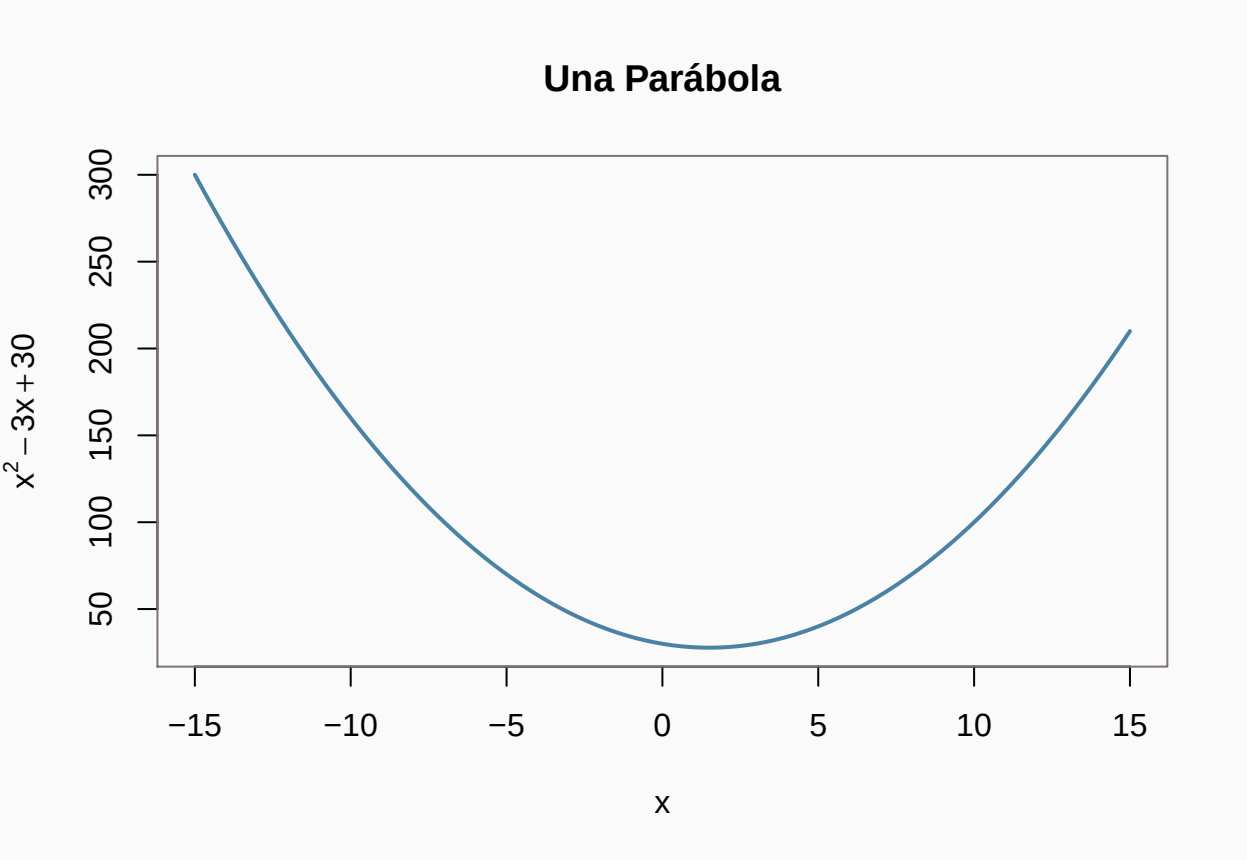
Representacion Gráfica

Ejercicio 1

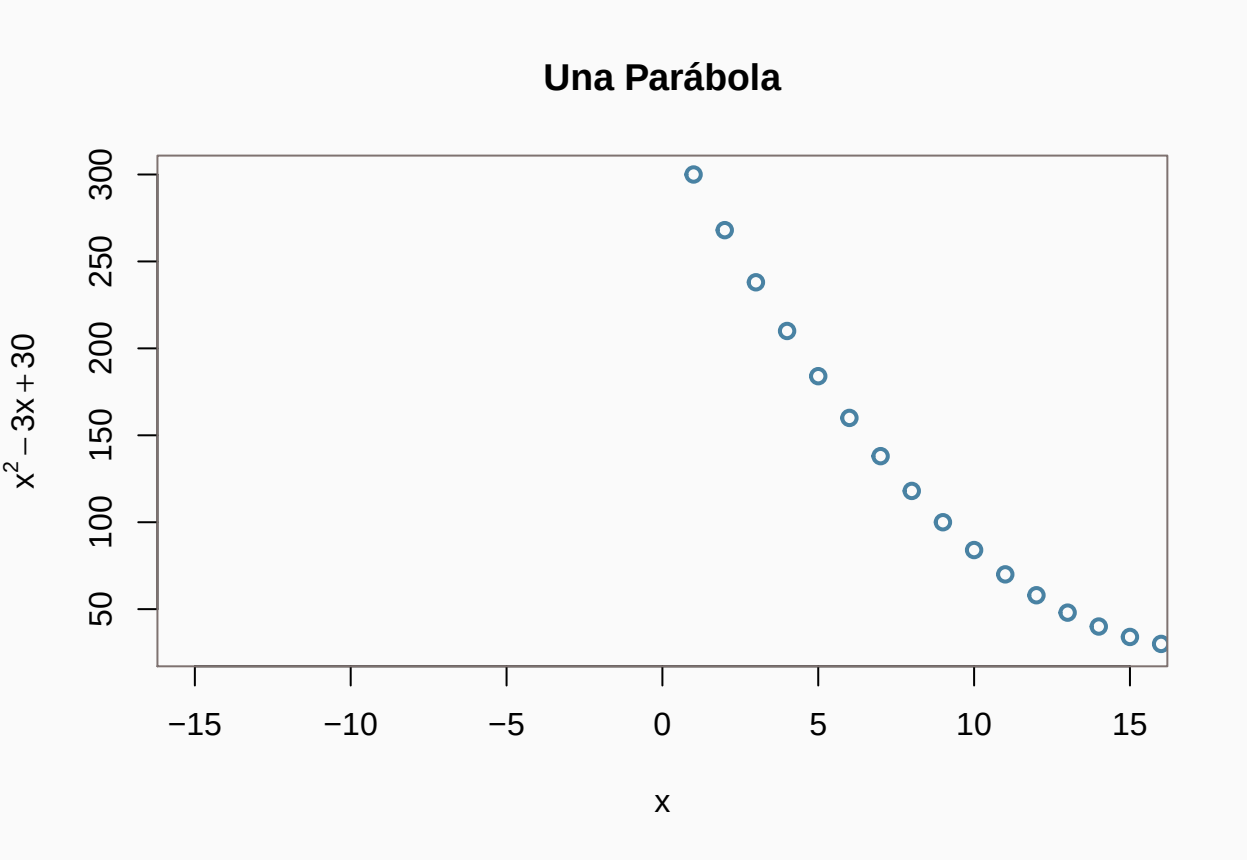
```
par(bg = "#fafafa", col="#7E7270")
curve(x^2-3*x+30, xlim = c(-15,15), xlab = expression(x), ylab = expression(x^2-3*x+30),
      main = "Una Parábola", col = "#4982A3", lwd = 2)
```



Ejercicio 2

función: $y = x^2 - 3x + 30$

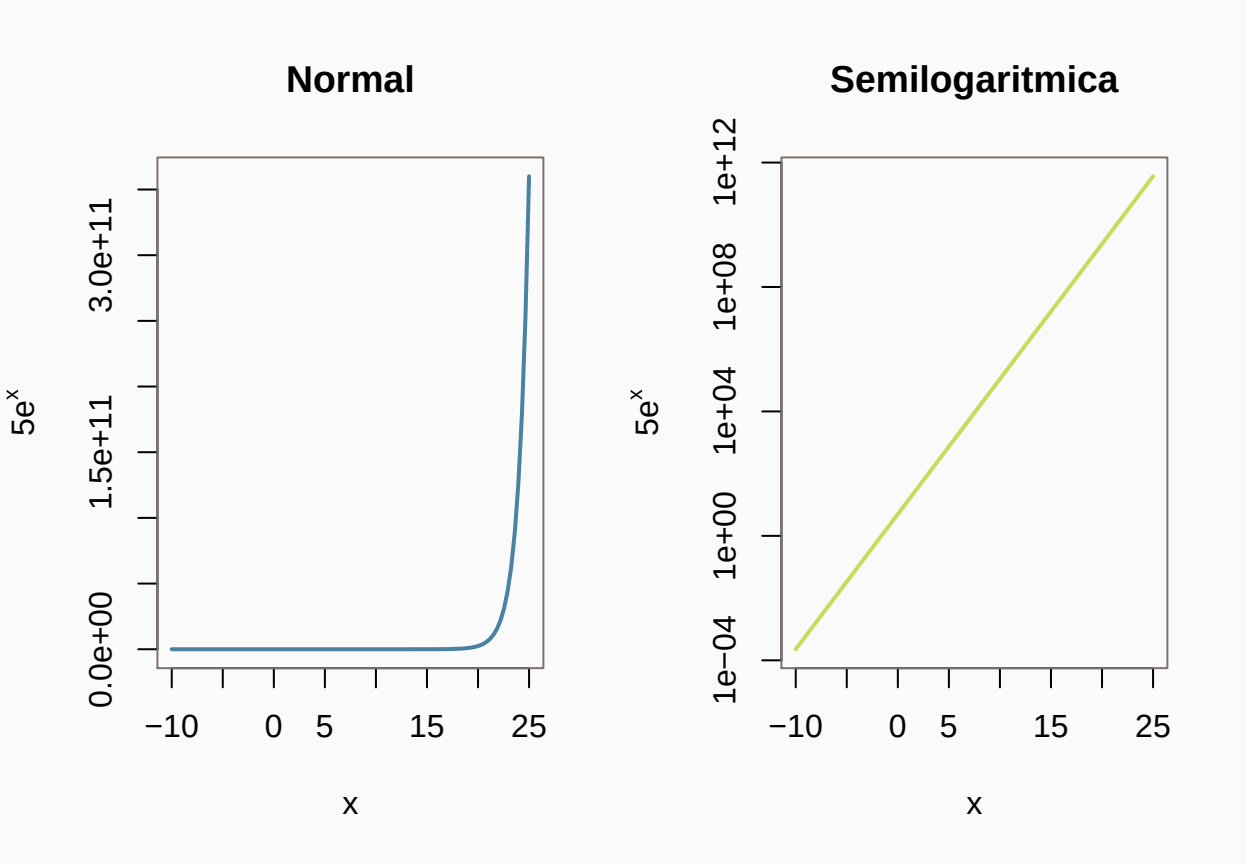
```r
f <- function(x) {
  return(x^2-3*x+30)
}
i <- seq(-15,15)
par(bg = "#fafafa", col="#7E7270")
plot(f(i), xlim = c(-15,15), xlab = expression(x), ylab = expression(x^2-3*x+30),
      main = "Una Parábola", col = "#4982A3", lwd = 2)
```



Ejercicio 3

función: $y = 5e^x$ entre $(-10, 25)$

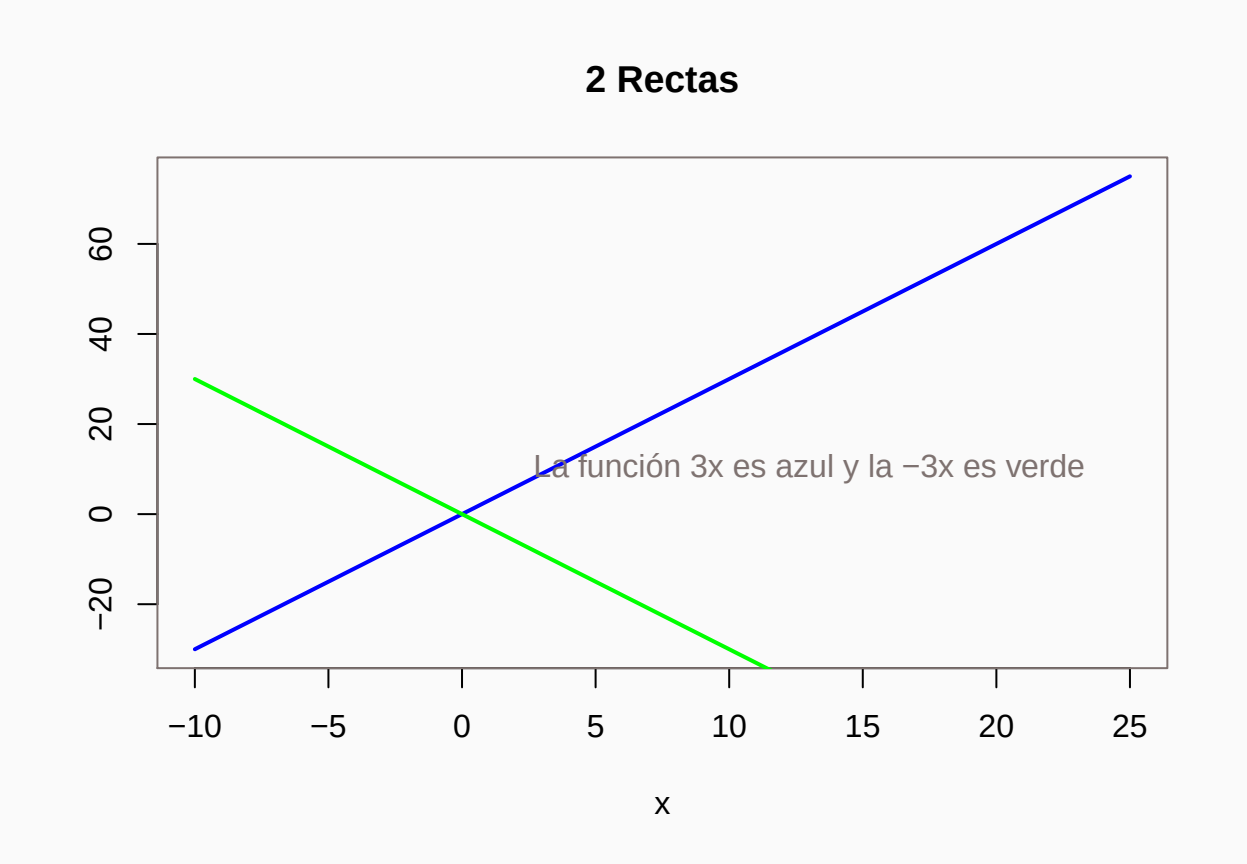
```r
f <- function(x) {
  return(5*exp(x))
}
par(bg = "#fafafa", col="#7E7270", mfrow = c(1,2))
normal = curve(f, xlim = c(-10,25), xlab = expression(x), ylab = expression(5*e^x),
               main = "Normal", col = "#4982A3", lwd = 2)
semilog = curve(f, xlim = c(-10,25), log = "y", xlab = expression(x), ylab = expression(5*e^x),
               main = "Semilogaritmica", col = "#CADB5C", lwd = 2)
```



Ejercicio 4

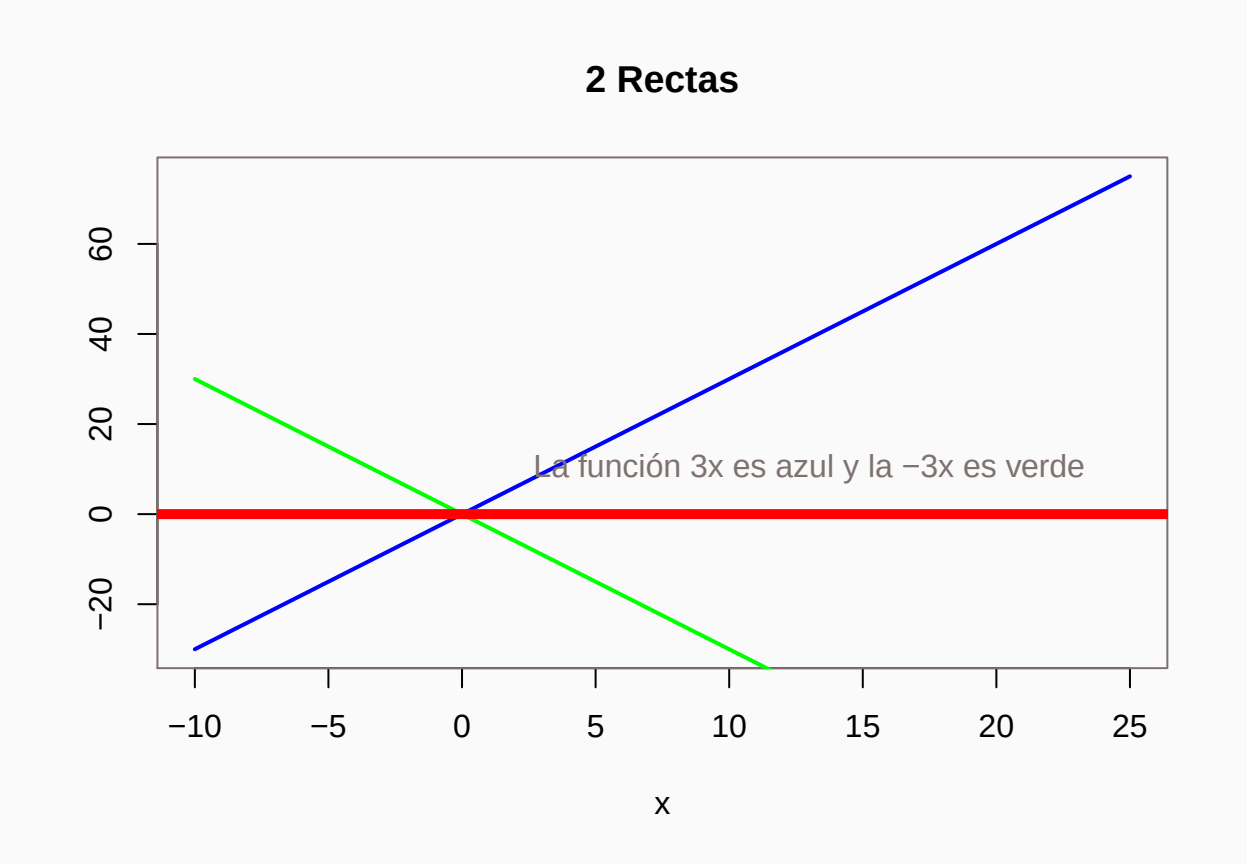
funciones: $y_1 = 3x$, $y_2 = -3x$ entre $(-10, 20)$

```
par(bg = "#fafafa", col="#7E7270")
y_1 = curve(3*x, xlim = c(-10,25), xlab = expression(x), ylab = "", main = "2 Rectas",
            col = "blue", lwd = 2)
y_2 = curve(-3*x, xlim = c(-10,25), xlab = expression(x), ylab = "",
            col = "green", lwd = 2, add = T)
text(13,10,"La función 3x es azul y la -3x es verde")
```



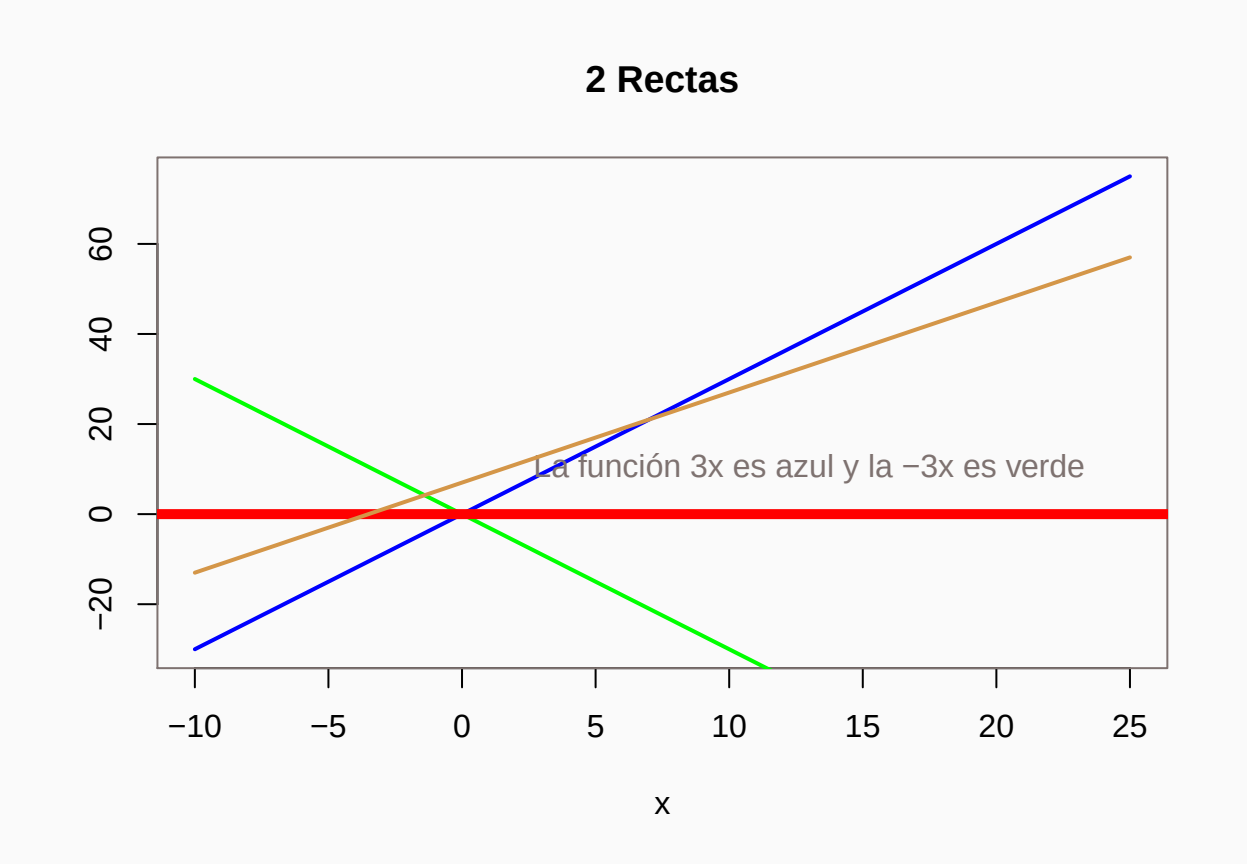
Ejercicio 5

```
par(bg = "#fafafa", col="#7E7270")
y_1 = curve(3*x, xlim = c(-10,25), xlab = expression(x), ylab = "", main = "2 Rectas",
            col = "blue", lwd = 2)
y_2 = curve(-3*x, xlim = c(-10,25), xlab = expression(x), ylab = "",
            col = "green", lwd = 2, add = T)
text(13,10,"La función 3x es azul y la -3x es verde")
abline(h = 0, col = "red", lwd = 5)
```



Ejercicio 6

```
par(bg = "#fafafa", col="#7E7270")
y_1 = curve(3*x, xlim = c(-10,25), xlab = expression(x), ylab = "", main = "2 Rectas",
            col = "blue", lwd = 2)
y_2 = curve(-3*x, xlim = c(-10,25), xlab = expression(x), ylab = "",
            col = "green", lwd = 2, add = T)
text(13,10,"La función 3x es azul y la -3x es verde")
abline(h = 0, col = "red", lwd = 5)
curve(2*x+7, col = "#D49648", lwd = 2, add = T)
```


2 Rectas
La función 3x es azul y la −3x es verde
60
40
20
0
−20
−10
−5
0
5
10
15
20
25
x