

# Laboratorio\_5.R

toryf

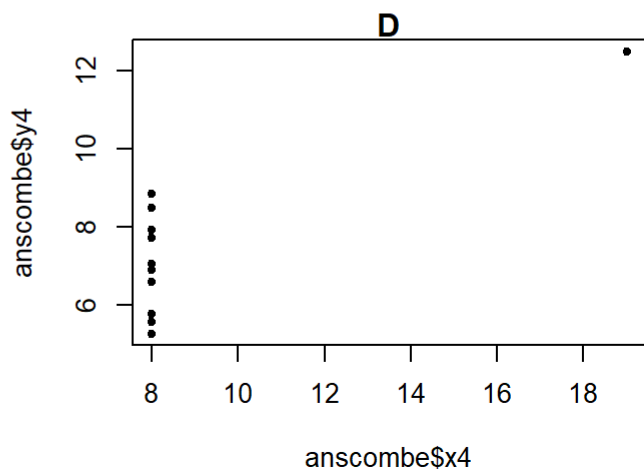
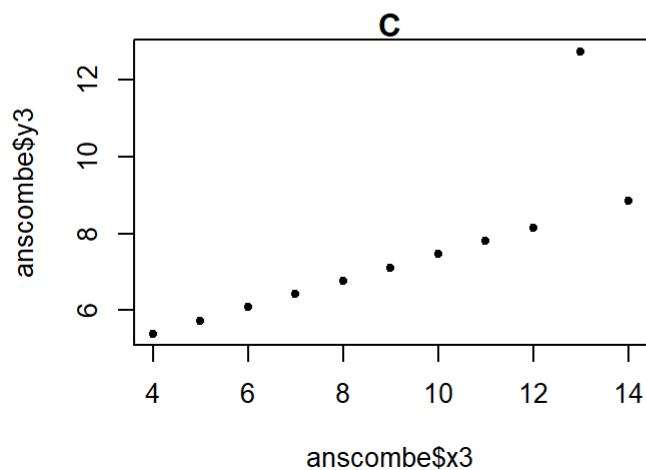
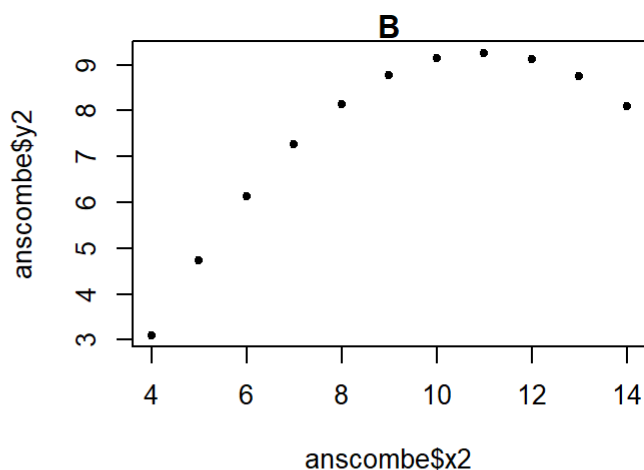
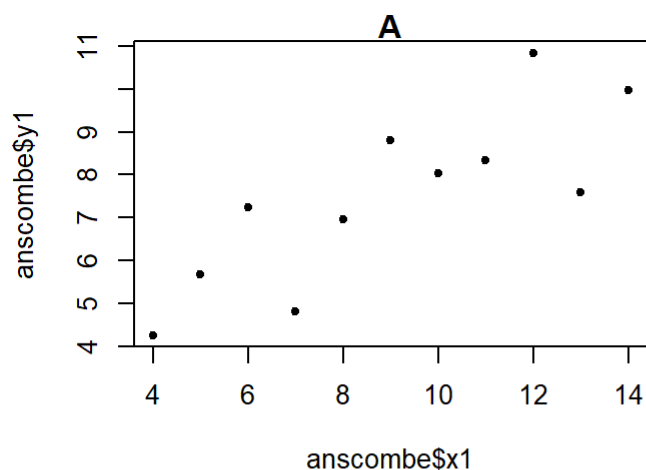
2023-02-28

```
# Laboratorio 5: Correlación
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# Fecha: 28/02/2023

# Ejercicio 1: El cuarteto de Anscombe -----

# generar graficos de distribucion de puntos para cada par de datos

op = par(mfrow = c(2, 2), mar = c(4.5, 4, 1, 1))
plot(anscombe$x1, anscombe$y1, pch = 20, main = "A")
plot(anscombe$x2, anscombe$y2, pch = 20, main = "B")
plot(anscombe$x3, anscombe$y3, pch = 20, main = "C")
plot(anscombe$x4, anscombe$y4, pch = 20, main = "D")
```



```
par(op)
```

```
# Coeficiente de correlacion -----
```

```
#plot A
```

```
cor.test(anscombe$x1, anscombe$y1)
```

```
##
## Pearson's product-moment correlation
##
## data:  anscombe$x1 and anscombe$y1
## t = 4.2415, df = 9, p-value = 0.00217
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.4243912 0.9506933
## sample estimates:
##          cor
## 0.8164205
```

```
#plot B
```

```
cor.test(anscombe$x2, anscombe$y2)
```

```
##
## Pearson's product-moment correlation
##
## data:  anscombe$x2 and anscombe$y2
## t = 4.2386, df = 9, p-value = 0.002179
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.4239389 0.9506402
## sample estimates:
##          cor
## 0.8162365
```

```
#plot C
```

```
cor.test(anscombe$x3, anscombe$y3)
```

```
##
## Pearson's product-moment correlation
##
## data:  anscombe$x3 and anscombe$y3
## t = 4.2394, df = 9, p-value = 0.002176
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  0.4240623 0.9506547
## sample estimates:
##          cor
## 0.8162867
```

```
#plot D  
cor.test(anscombe$x4, anscombe$y4)
```

```
##  
## Pearson's product-moment correlation  
##  
## data: anscombe$x4 and anscombe$y4  
## t = 4.243, df = 9, p-value = 0.002165  
## alternative hypothesis: true correlation is not equal to 0  
## 95 percent confidence interval:  
## 0.4246394 0.9507224  
## sample estimates:  
## cor  
## 0.8165214
```