lab5_Jonathan_Abelardo_Mata_Hernandez.R

Jana0

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#ANALISIS ESTADISTICO
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#Laboratorio 5: Correlación

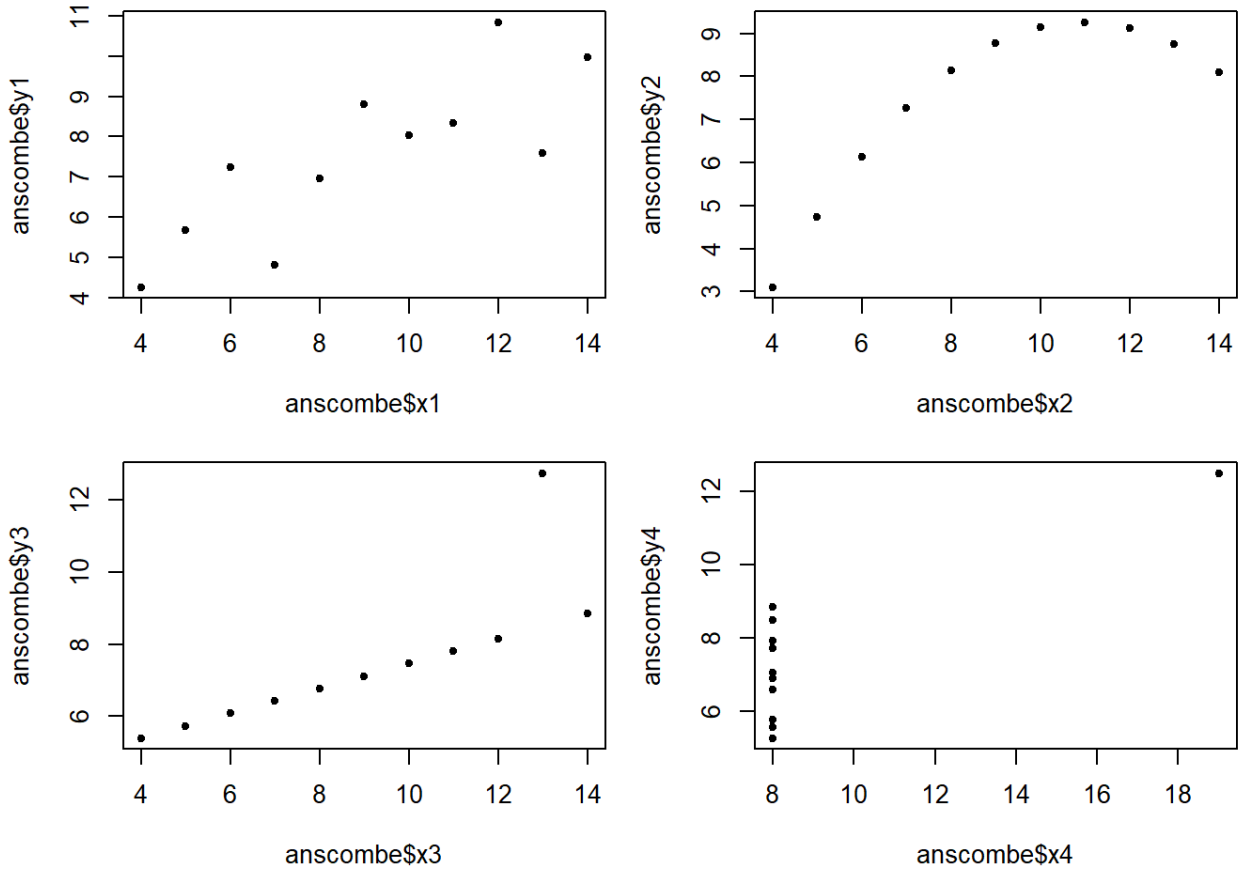

# Ejercicio 1: El cuarteto de Anscombe ----------------------------------

#Actividades

#Generar los gráficos de distribución de puntos para cada par de datos

# Graficar en un cuadro de 2x2

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



```
par(op)


#Correlacion

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
```

```
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
```

```
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
```

```
cor.test(anscombe$y4, anscombe$y4)
```

```
##
##  Pearson's product-moment correlation
##
## data:  anscombe$y4 and anscombe$y4
## t = Inf, df = 9, p-value < 2.2e-16
## alternative hypothesis: true correlation is not equal to 0
## 95 percent confidence interval:
##  1 1
## sample estimates:
## cor
##   1
```