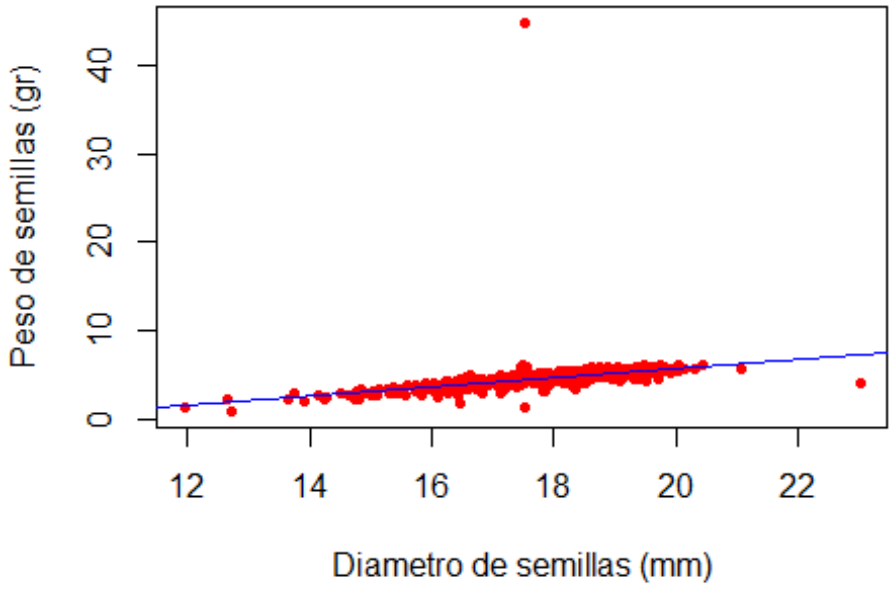
# semana-15.R

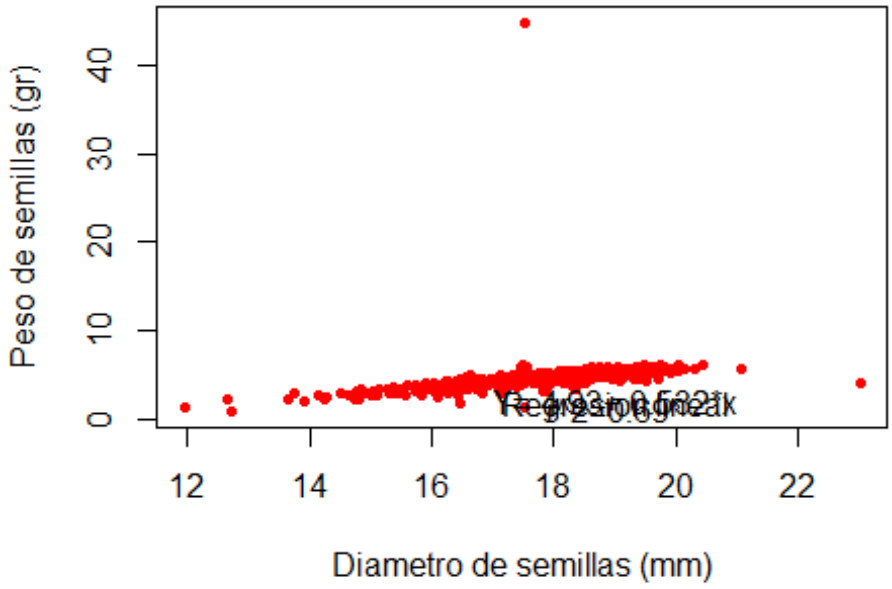
Usuario

2022-05-25

```
#MZZ
#04/05/10
#semana 15

semillass <-read.csv("semillas.csv" , header = TRUE)

#Plot de diametro vs peso en gramos

plot(semillass$Diametro_mm, semillass$Peso_gr,pch=20, xlab = "Diametro de
semillas (mm)", ylab = "Peso de semillas (gr)", col = "red")


#Funcion lm funcion que me ayuda a determinar alfa y beta de la regresion

sem.lm <- lm(semillass$Peso_gr ~ semillass$Diametro_mm)
summary(sem.lm)

##
## Call:
## lm(formula = semillass$Peso_gr ~ semillass$Diametro_mm)
##
## Residuals:
##    Min     1Q Median     3Q    Max
## -3.187 -0.269 -0.047  0.188 40.419
##
## Coefficients:
##                       Estimate Std. Error t value Pr(>|t|)
## (Intercept)           -4.75894    1.00267  -4.746  2.6e-06 ***
## semillass$Diametro_mm  0.52570    0.05665   9.280  < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.712 on 597 degrees of freedom
## Multiple R-squared:  0.1261, Adjusted R-squared:  0.1246
## F-statistic: 86.13 on 1 and 597 DF,  p-value: < 2.2e-16

semillass$yprima <- round(-4.93375+ 0.53178* semillass$Diametro_mm,2)

abline(sem.lm, col = "blue")
```




```
plot(semillass$Diametro_mm, semillass$Peso_gr,pch=20, xlab = "Diametro de
semillas (mm)", ylab = "Peso de semillas (gr)", col = "red")
text(19, 2, "Y=-4.93+ 0.532*x")
text(19, 1.5, "Regresion lineal")
text(19, 1.1, "r^2=0.69*")
```




```
semillass$Ajustados <- round(sem.lm$fitted.values,2)

sem.lm$coefficients

##           (Intercept) semillass$Diametro_mm
##            -4.7589445             0.5256978

sum(sem.lm$residuals)

## [1] 6.827872e-15

#Encontrar los valores aplicados la formula de reg 18, 11, 14, 16, 15

valores <- c(12.5, 14, 15, 16, 18)
-4.93375+ 0.53178*valores

## [1] 1.71350 2.51117 3.04295 3.57473 4.63829
```