regressao_linear_R2

July 21, 2021

[32]:
```
library(tidyverse)
options(repr.plot.width=4, repr.plot.height=4)
```

[33]:
```
Pegada = c(29.7, 29.7, 31.4, 31.8, 27.6)
Altura = c(175.3, 177.8, 185.4, 175.3, 172.7)
```

[66]:
```
tab = data.frame(Y = Altura, X = Pegada)
tab
```

Y	X
175.3	29.7
177.8	29.7
185.4	31.4
175.3	31.8
172.7	27.6

[69]:
```
m = lm(Y ~ X, data = tab)
summary(m)
```

```
Call:
lm(formula = Y ~ X, data = tab)

Residuals:
     1      2      3      4      5
-1.413  1.087  5.751 -5.040 -0.385

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  125.407     40.915   3.065   0.0548 .
X              1.727      1.360   1.270   0.2937
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 4.539 on 3 degrees of freedom
Multiple R-squared:  0.3496,        Adjusted R-squared:  0.1328
F-statistic: 1.613 on 1 and 3 DF,  p-value: 0.2937
```

[70]:
```
anova(m)
```

	Df	Sum Sq	Mean Sq	F value	Pr(>F)
X	1	33.21891	33.21891	1.61254	0.2936863
Residuals	3	61.80109	20.60036	NA	NA

[71]:
```
4.539^2
```

20.602521