Lista 4 - Gabarito

Caio Forcione

2022-10-24

```
require(wooldridge)
```

```
## Loading required package: wooldridge
```

C2

(i)

```
summary(ceosal2$salary)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   100.0   471.0   707.0   865.9  1119.0  5299.0
```

```
summary(ceosal2$ceoten)
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
##   0.000   3.000   6.000   7.955  11.000  37.000
```

(ii)

```
table(ceosal2$ceoten)
```

```
##
##  0  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20 21 22 24 26 28
##  5 19 10 21 21 10 11  6 11  8  8  4  7  7  5  2  2  2  1  2  4  1  1  3  2  1
## 34 37
##  1  2
```

(iii)

```
reg_c2 <- lm(lsalary ~ ceoten, data = ceosal2)

summary(reg_c2)
```

```
##
## Call:
## lm(formula = lsalary ~ ceoten, data = ceosal2)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.15314 -0.38319 -0.02251  0.44439  1.94337
##
## Coefficients:
```

```
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) 6.505498    0.067991   95.682    <2e-16 ***
## ceoten      0.009724    0.006364    1.528     0.128
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.6038 on 175 degrees of freedom
## Multiple R-squared:  0.01316,    Adjusted R-squared:  0.007523
## F-statistic: 2.334 on 1 and 175 DF,  p-value: 0.1284
```

(i)

```
?sleep75

View(sleep75)
```

```
reg_c3 <- lm(sleep ~ totwrk, data = sleep75)

summary (reg_c3)
```

```
##
## Call:
## lm(formula = sleep ~ totwrk, data = sleep75)
##
## Residuals:
##      Min        1Q   Median        3Q       Max
## -2429.94   -240.25      4.91    250.53   1339.72
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) 3586.37695   38.91243   92.165    <2e-16 ***
## totwrk        -0.15075    0.01674   -9.005    <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 421.1 on 704 degrees of freedom
## Multiple R-squared:  0.1033, Adjusted R-squared:  0.102
## F-statistic: 81.09 on 1 and 704 DF,  p-value: < 2.2e-16
```

(ii)

Se aumentar a jornada de trabalho em 2 horas por semana é esperado que se reduza aproximadamente 18 minutos de sono por semana.