

```
#Read the data file and save the results
csdata <- read.csv("testscores_california_1999.csv")

#We are interested in the relationship between
# testscr: the average reading/math score in grade 5
# str: student to teacher ratio
csreduced <- subset(csdata,select=c("testscr","str"))

#Now ask for the summary of the reduced data
summary(csreduced)
```

```
##      testscr      str
## Min.      :606   Min.      :14.0
## 1st Qu.:640   1st Qu.:18.6
## Median :654   Median :19.7
## Mean      :654   Mean      :19.6
## 3rd Qu.:667   3rd Qu.:20.9
## Max.      :707   Max.      :25.8
```

```
#Fit the LS regression line
starLM <- lm(testscr~str,data=csreduced)
#Display the results
sum.results <- summary(starLM)
sum.results
```

```
##
## Call:
## lm(formula = testscr ~ str, data = csreduced)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -47.73  -14.25    0.48   12.82   48.54
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)   698.93      9.47    73.82  < 2e-16 ***
## str           -2.28      0.48   -4.75  2.8e-06 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 18.6 on 418 degrees of freedom
## Multiple R-squared:  0.0512, Adjusted R-squared:  0.049
## F-statistic: 22.6 on 1 and 418 DF,  p-value: 2.78e-06
```