OK, let’s get started with just some text:

```r
# create some random numbers
(x = rnorm(20))

[1] -0.5931 -0.4703 1.9266 -0.1784 -0.4524 -0.0578 1.1536
[8] -0.5467 1.7611 -0.5427 -0.4300 -0.2429 0.2328 -1.1437
[15] 2.0264 -0.1021 -0.4903 -1.1452 0.5085 2.0431

mean(x)

[1] 0.1628

var(x)

[1] 1.091

BTW, the first element of x is -0.5931. (Did you notice the use of \Sexpr{.})
Second Test

Text is nice but let’s see what happens if we make a couple of plots in our chunk:

\[
\text{par(las = 1, mar = c(4, 4, 0.1, 0.1)) \# tick labels direction}
\]
\[
\text{boxplot(x)}
\]
\[
\text{hist(x, main = "", col = "blue", probability = TRUE)}
\]
\[
\text{lines(density(x), col = "red")}
\]
Text is nice but let's see what happens if we make a couple of plots in our chunk:
Reading in Data

```r
site <- "http://www1.appstate.edu/~arnholta/classes/Data/cardata.csv"
CARS <- read.csv(file = url(site), colClasses = c(rep("numeric", 2), rep("factor", 5), "numeric", rep("factor", 4)))
str(CARS)
'
'data.frame': 804 obs. of 12 variables:
$ Price : num 17314 17542 16219 16337 16339 ... 
$ Mileage: num 8221 9135 13196 16342 19832 ... 
$ Make : Factor w/ 6 levels "Buick","Cadillac",..: 1 1 1 1 1 1 1 1 1 1 ... 
$ Model : Factor w/ 32 levels "9-2X AWD","9_3",..: 9 9 9 9 9 9 9 9 9 9 ... 
$ Trim : Factor w/ 47 levels "Aero Conv 2D",..: 40 40 40 40 40 40 40 40 40 40 ... 
$ Type : Factor w/ 5 levels "Convertible",..: 4 4 4 4 4 4 4 4 4 4 ... 
$ Cylinder: Factor w/ 3 levels "4","6","8": 2 2 2 2 2 2 2 2 2 2 ... 
$ Liter : num 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 ... 
$ Doors : Factor w/ 2 levels "2","4": 2 2 2 2 2 2 2 2 2 2 ... 
$ Cruise : Factor w/ 2 levels "0","1": 2 2 2 2 2 2 2 2 2 2 ... 
$ Sound : Factor w/ 2 levels "0","1": 2 2 2 1 1 2 2 2 1 2 ... 
$ Leather: Factor w/ 2 levels "0","1": 2 1 1 1 2 1 1 1 2 2 ... 
```
modQ3 <- lm(Price ~ Mileage, data = CARS)
summary(modQ3)

Call:
  lm(formula = Price ~ Mileage, data = CARS)

Residuals:
  Min     1Q   Median     3Q    Max
-13905  -7254   -3520   5188  46091

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept) 2.48e+04  9.04e+02   27.38  < 2e-16 ***
Mileage     -1.72e-01  4.21e-02   -4.09  4.7e-05 ***
---
Signif. codes: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 9790 on 802 degrees of freedom
Multiple R-squared: 0.0205, Adjusted R-squared: 0.0192
F-statistic: 16.8 on 1 and 802 DF,  p-value: 4.68e-05
The output for modQ3 is not pretty
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So, make the output pretty with xtable()
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|                    | Estimate | Std. Error | t value | Pr(>|t|) |
|--------------------|----------|------------|---------|----------|
| (Intercept)        | 24764.56 | 904.36     | 27.38   | 0.00     |
| Mileage            | -0.17    | 0.04       | -4.09   | 0.00     |

\textbf{Table:} Regression Output