# Reproducible Tables

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## R Markdown

$$e = mc^2$$

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(mtcars)
```

```
##       mpg             cyl             disp             hp
##  Min.   :10.40   Min.   :4.000   Min.   : 71.1   Min.   : 52.0
##  1st Qu.:15.43   1st Qu.:4.000   1st Qu.:120.8   1st Qu.: 96.5
##  Median :19.20   Median :6.000   Median :196.3   Median :123.0
##  Mean   :20.09   Mean   :6.188   Mean   :230.7   Mean   :146.7
##  3rd Qu.:22.80   3rd Qu.:8.000   3rd Qu.:326.0   3rd Qu.:180.0
##  Max.   :33.90   Max.   :8.000   Max.   :472.0   Max.   :335.0
##       drat             wt             qsec             vs
##  Min.   :2.760   Min.   :1.513   Min.   :14.50   Min.   :0.0000
##  1st Qu.:3.080   1st Qu.:2.581   1st Qu.:16.89   1st Qu.:0.0000
##  Median :3.695   Median :3.325   Median :17.71   Median :0.0000
##  Mean   :3.597   Mean   :3.217   Mean   :17.85   Mean   :0.4375
##  3rd Qu.:3.920   3rd Qu.:3.610   3rd Qu.:18.90   3rd Qu.:1.0000
##  Max.   :4.930   Max.   :5.424   Max.   :22.90   Max.   :1.0000
##       am             gear             carb
##  Min.   :0.0000   Min.   :3.000   Min.   :1.000
##  1st Qu.:0.0000   1st Qu.:3.000   1st Qu.:2.000
##  Median :0.0000   Median :4.000   Median :2.000
##  Mean   :0.4062   Mean   :3.688   Mean   :2.812
##  3rd Qu.:1.0000   3rd Qu.:4.000   3rd Qu.:4.000
##  Max.   :1.0000   Max.   :5.000   Max.   :8.000
```

## Including Plots

You can also embed plots, for example:
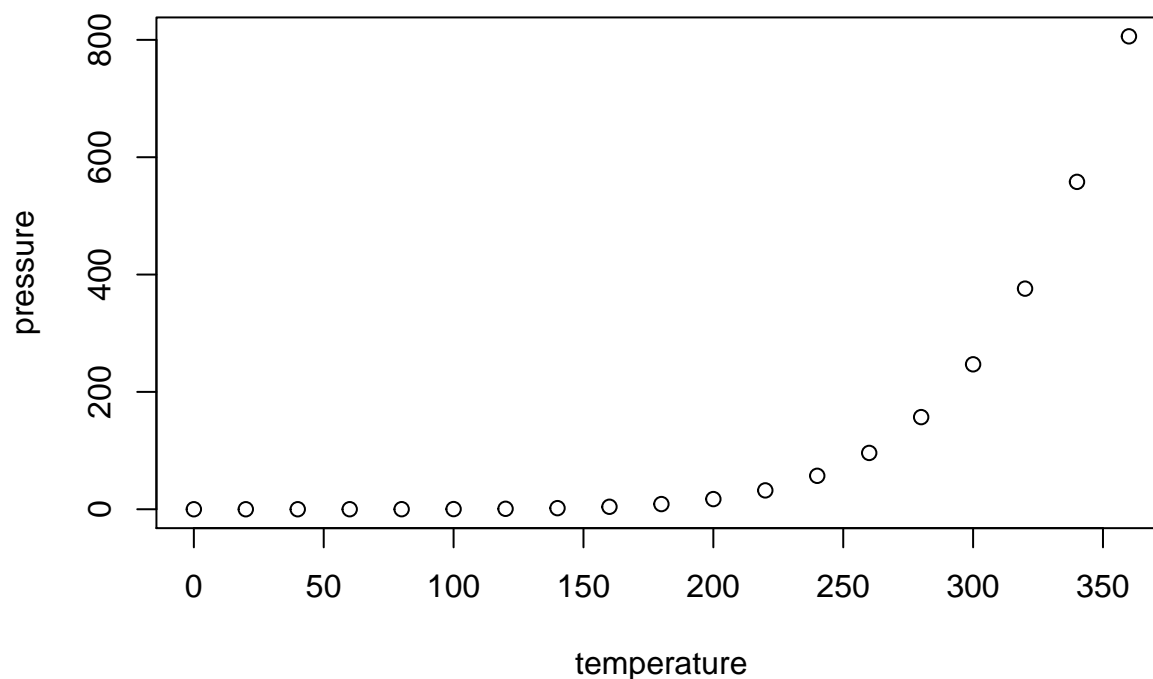
Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

## Beautiful Tables

You can also embed plots, for example:

```
model1 = lm(mpg ~cyl + disp + hp + wt, data=mtcars)
model2 = lm(mpg ~., data=mtcars)
summary(model1)
```

```
##
## Call:
## lm(formula = mpg ~ cyl + disp + hp + wt, data = mtcars)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -4.0562 -1.4636 -0.4281  1.2854  5.8269
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) 40.82854    2.75747  14.807 1.76e-14 ***
## cyl         -1.29332    0.65588  -1.972 0.058947 .
## disp         0.01160    0.01173   0.989 0.331386
## hp          -0.02054    0.01215  -1.691 0.102379
## wt          -3.85390    1.01547  -3.795 0.000759 ***
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 2.513 on 27 degrees of freedom
## Multiple R-squared:  0.8486, Adjusted R-squared:  0.8262
## F-statistic: 37.84 on 4 and 27 DF,  p-value: 1.061e-10
```

|              | Model 1     | Model 2   |
| ------------ | ----------- | --------- |
| (Intercept)  | 40.83***    | 12.30     |
|              | (2.76)      | (18.72)   |
| cyl          | −1.29       | −0.11     |
|              | (0.66)      | (1.05)    |
| disp         | 0.01        | 0.01      |
|              | (0.01)      | (0.02)    |
| hp           | −0.02       | −0.02     |
|              | (0.01)      | (0.02)    |
| wt           | −3.85***    | −3.72     |
|              | (1.02)      | (1.89)    |
| drat         |             | 0.79      |
|              |             | (1.64)    |
| qsec         |             | 0.82      |
|              |             | (0.73)    |
| vs           |             | 0.32      |
|              |             | (2.10)    |
| am           |             | 2.52      |
|              |             | (2.06)    |
| gear         |             | 0.66      |
|              |             | (1.49)    |
| carb         |             | −0.20     |
|              |             | (0.83)    |
| $R^2$        | 0.85        | 0.87      |
| Adj. $R^2$   | 0.83        | 0.81      |
| Num. obs.    | 32          | 32        |
| RMSE         | 2.51        | 2.65      |

$^{***}p < 0.001$, $^{**}p < 0.01$, $^{*}p < 0.05$

Table 1: Statistical models

For help, see `texreg`.

## Other cool stuff

Python in R!

```python
def hola_mundo(x,y):
    print("{}, {}!".format(x,y))

hola_mundo("Hello", "World")
```

## Hello, World!