

# R markdown Tutorial

*Doro Hodapp*

*7 November 2016*

## Setup

To use R markdown you first need to install the two packages *rmarkdown* and *knitr*.

If you want to be able to produce pdf documents additional to html and word documents in R markdown you also need to install TeX on your computer. You can download it [here](#).

Once you have installed the packages go to File -> New File -> R markdown. Specify the type of document you want to produce and click **OK**.

## R Markdown

Plain text

End a line with two spaces to end a paragraph.

You can use different styles, e.g. *italics* or alternatively *italics* or write something in **bold**, or alternatively use **bold**.

You can use superscripts<sup>2</sup>

or ~~strikethrough~~

or include a link to a webpage like this [link to the Rstudio site](#).

You can also use a hierarchical system of headers:

## Header 1

## Header 2

## Header 3

## Header 4

**and so on.**

endash: –

emdash: —

ellipsis: ...

inline equation:  $A = \pi * r^2$

embed and image like this check mark:



horizontal rule (or slide break):

---

block quote indicated by a line on the side highlighting all lines included in your block quote

Include ordered or unordered lists of itmes and subitems, but be sure to leave an empty line before your list otherwise it won't show up.

- unordered list
  - item 2
    - sub-item 1
    - sub-item 2
1. numbered item 2
  2. numbered item 2
    - sub-item 1
    - sub-item 2

Include simple tables:

Table Header	Second Header
Table cell	Cell 2
Cell 3	Cell 4

You can also include so called chunks of R code to load and manipulate data or run analyses by typing three back ticks followed by an `r` in braces. R will then include the code itself or only the output in the output document depending on what you specify in the braces:

```
paste("Hello", "World!")
```

```
## [1] "Hello World!"
```

```
summary(cars)
```

```
##      speed      dist
##  Min.   : 4.0    Min.   :  2.00
## 1st Qu.:12.0    1st Qu.: 26.00
##  Median :15.0    Median : 36.00
##   Mean  :15.4    Mean   : 42.98
## 3rd Qu.:19.0    3rd Qu.: 56.00
##   Max.  :25.0    Max.    :120.00
```

## Inline code

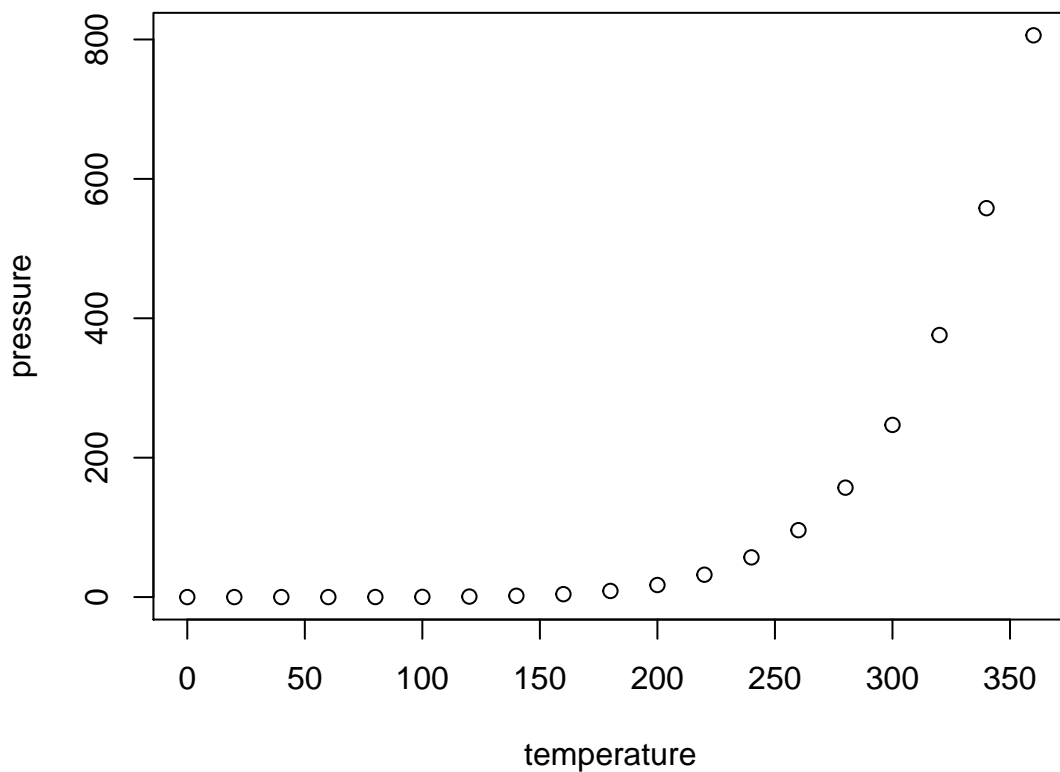
You can include inline code by surrounding code with back ticks and `r`. R will then replace inline code with its results.

```
A=c(3,4,5,7,7,4,3,3,5,5,6,6)
```

Example: The variance of A is 2.15

## 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.

Good resources are the R markdown cheatsheet and the R markdown reference guide which you can find in recent R studio versions under Help > Cheatsheets and under this link.