

# Geometría analítica

*Ricardo Michel MALLQUI BAÑOS*

*2020-02-16*



# Índice general

<b>1. Prerequisites</b>	<b>5</b>
<b>2. Introduction</b>	<b>7</b>
<b>3. Literature</b>	<b>9</b>
<b>4. Methods</b>	<b>11</b>
<b>5. Applications</b>	<b>13</b>
5.1. Example one . . . . .	13
5.2. Example two . . . . .	13
<b>6. Final Words</b>	<b>15</b>



# Capítulo 1

## Prerequisitos

```
x <- seq(0.5, 1.5, 0.25)
y <- rep(1, length(x))
plot(x, y, main="Effect of cex on text size")
text(x, y+0.1, labels=x, cex=x)
plot(x, y, main="Effect of cex.main, cex.lab and cex.axis",
+ cex.main=1.25, cex.lab=1.5, cex.axis=0.75)
```

See Theorem 1.1

**Teorema 1.1.** *Here is my theorem.*

**Definición 1.1** (ww).

See Figure 1.1 1.2

```
plot(cars) # a scatterplot
```

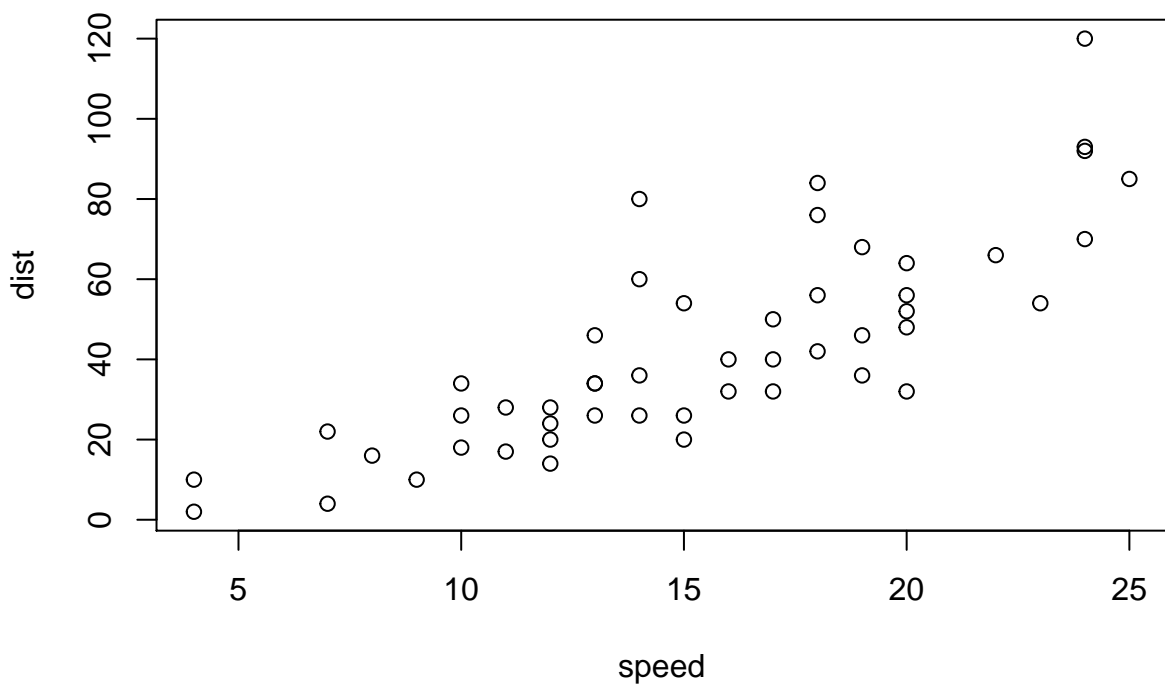


Figura 1.1: A plot caption

Cuadro 1.1: A caption

	mpg	cyl	disp	hp	drat
Mazda RX4	21.0	6	160	110	3.90
Mazda RX4 Wag	21.0	6	160	110	3.90
Datsun 710	22.8	4	108	93	3.85
Hornet 4 Drive	21.4	6	258	110	3.08
Hornet Sportabout	18.7	8	360	175	3.15

**Teorema 1.2** (Pythagorean theorem). *For a right triangle, if  $c$  denotes the length of the hypotenuse and  $a$  and  $b$  denote the lengths of the other two sides, we have*

$$a^2 + b^2 = c^2$$

See Table 1.1

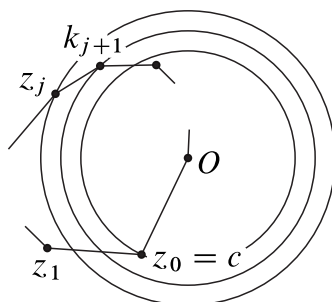


Figura 1.2: A caption

```
knitr::kable(mtcars[1:5, 1:5], caption = "A caption", booktabs=TRUE)
```

$$f(k) = \binom{n}{k} p^k (1-p)^{n-k} \quad (1.1)$$

Este es un *ejemplo* book written in **Markdown** (1.1). You can use anything that Pandoc's Markdown supports, e.g., a math equation  $a^2 + b^2 = c^2$ .

The **bookdown** package can be installed from CRAN or Github:

```
install.packages("bookdown")
# or the development version
# devtools::install_github("rstudio/bookdown")
```

Remember each Rmd file contains one and only one chapter, and a chapter is defined by the first-level heading #.

To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): <https://yihui.org/tinytex/>.

# Capítulo 2

## Introduction

You can label chapter and section titles using `{#label}` after them, e.g., we can reference Chapter 2. If you do not manually label them, there will be automatic labels anyway, e.g., Chapter 4.

Figures and tables with captions will be placed in `figure` and `table` environments, respectively.

```
par(mar = c(4, 4, .1, .1))
plot(pressure, type = 'b', pch = 19)
```

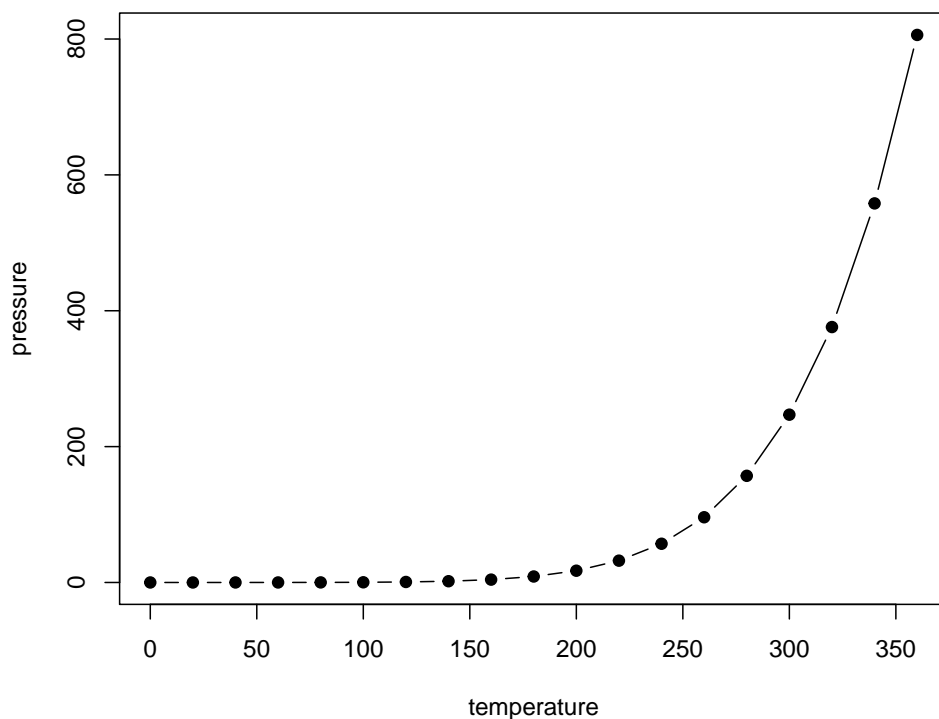


Figura 2.1: Here is a nice figure!

Reference a figure by its code chunk label with the `fig:` prefix, e.g., see Figure 2.1. Similarly, you can reference tables generated from `knitr::kable()`, e.g., see Table 2.1.

Cuadro 2.1: Here is a nice table!

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.1	3.5	1.4	0.2	setosa
4.9	3.0	1.4	0.2	setosa
4.7	3.2	1.3	0.2	setosa
4.6	3.1	1.5	0.2	setosa
5.0	3.6	1.4	0.2	setosa
5.4	3.9	1.7	0.4	setosa
4.6	3.4	1.4	0.3	setosa
5.0	3.4	1.5	0.2	setosa
4.4	2.9	1.4	0.2	setosa
4.9	3.1	1.5	0.1	setosa
5.4	3.7	1.5	0.2	setosa
4.8	3.4	1.6	0.2	setosa
4.8	3.0	1.4	0.1	setosa
4.3	3.0	1.1	0.1	setosa
5.8	4.0	1.2	0.2	setosa
5.7	4.4	1.5	0.4	setosa
5.4	3.9	1.3	0.4	setosa
5.1	3.5	1.4	0.3	setosa
5.7	3.8	1.7	0.3	setosa
5.1	3.8	1.5	0.3	setosa

```
knitr::kable(
  head(iris, 20), caption = 'Here is a nice table!',
  booktabs = TRUE
)
```

You can write citations, too. For example, we are using the **bookdown** package (Xie, 2020) in this sample book, which was built on top of R Markdown and **knitr** (Xie, 2015).



# Capítulo 3

## Literature

Here is a review of existing methods.



# Capítulo 4

## Methods

We describe our methods in this chapter.



# Capítulo 5

## Applications

Some *significant* applications are demonstrated in this chapter.

### 5.1. Example one

### 5.2. Example two



# Capítulo 6

## Final Words

We have finished a nice book.





# Bibliografía

Xie, Y. (2015). *Dynamic Documents with R and knitr*. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition. ISBN 978-1498716963.

Xie, Y. (2020). *bookdown: Authoring Books and Technical Documents with R Markdown*. R package version 0.17.