# Geometría analítica

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# Índice general

## CAPÍTULO 1

**Prerequisitos**

### 1.1. Ingresar imagen

Generar pdf y svg en inskape(ajustar Shift+Ctrl+R) o relativos luego se debe guardar en el mismo directorio general luego se usa el entorno `ff fff`

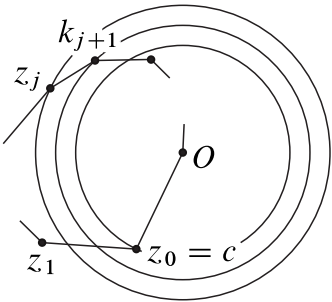$$\prod_{1}^{2}$$

See Theorem 1.1

$$\sum_{1}^{2}$$



Figura 1.1: ww

**Teorema 1.1.** *Here is my theorem.*
**Definición 1.1** (ww)**.**

See Figure 1.3 1.1

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

**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*

$$a^2 + b^2 = c^2$$
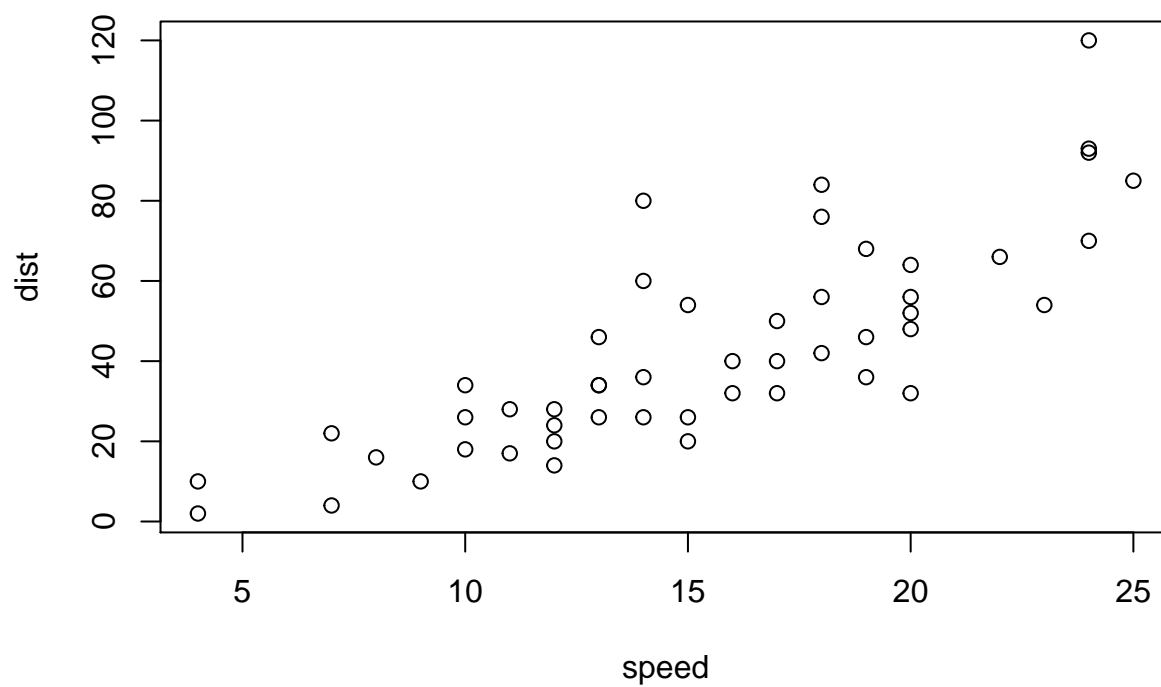
See Table 1.1

Figura 1.2: ww



Figura 1.3: 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 |

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

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

Este es un *ejemplo* book written in \*\*Markdown. La ecuacion (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:

```r
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 #.

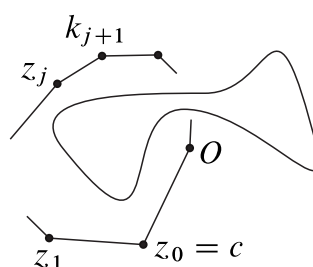To compile this example to PDF, you need XeLaTeX. You are recommended to install TinyTeX (which includes XeLaTeX): https://yihui.org/tinytex/.



Figura 1.4: ww

## CAPÍTULO 2

### Introduction

**Teorema 2.1** (russ)**.** *Dada el espacio R y $r \in R$ se tiene que $\mathcal{R}(r) = \lim_{t \to \infty} g(y)_r$*

*Demostración.* En efecto haciendo el intercambio de variables se tiene que $\sum_{i=1}^{\infty} r_i$

$$\vec{r} = \left| \frac{\int_1^{\vec{2}} r}{|r_1^2|} \right| \left\| \int_1^2 e \right\|$$

por lo tanto se cumple.  □

You can label chapter and section titles using 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 and environments, respectively.

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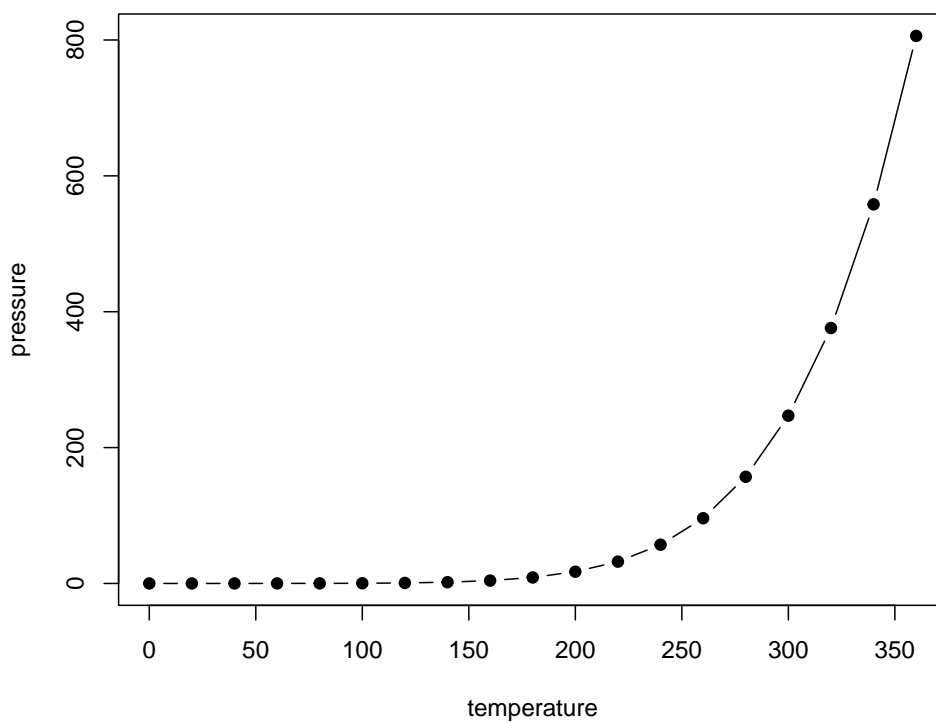


Figura 2.1: Here is a nice figure!

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 |

Reference a figure by its code chunk label with the prefix, e.g., see Figure 2.1. Similarly, you can reference tables generated from, e.g., see Table 2.1.

```r
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.