Fiche TD avec le logiciel : tdr7a

Les exemples graphiques des jeux de données standard

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1 Introduction

Les jeux de données se chargent avec la fonction `data()`. On peut alors utiliser la fonction `example()` pour exécuter les exemples correspondants s’ils existent. Par exemple :

```r
data(CO2)
example(CO2, echo = FALSE)
```
Les packages explorés ici sont ceux de la distribution standard, leur liste peut être obtenue ainsi :

```r
pcklist <- installed.packages()
pcklist <- pcklist[!is.na(pcklist[, "Priority"]), c(1, 3, 4)]
pcklist
```

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2 MASS 7.2-27

2.1 Skye : AFM Compositions of Aphyric Skye Lavas
2.2  beav1 : Body Temperature Series of Beaver 1

![Graphs of beaver temperature series]
2.3 beav2 : Body Temperature Series of Beaver 2

2.4 caith : Colours of Eyes and Hair of People in Caithness
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These two components explain 100% of the point variability.

The silhouette plot for k = 4 shows the average silhouette width of 0.74.

For k = 5, the silhouette plot reveals an average silhouette width of 0.71.
5 datasets 2.3.0

5.1 CO2 : Carbon Dioxide uptake in grass plants

5.2 ChickWeight : Weight versus age of chicks on different diets
5.3 DNase: Elisa assay of DNase

5.4 Formaldehyde: Determination of Formaldehyde
5.5 HairEyeColor : Hair and Eye Color of Statistics Students

5.6 InsectSprays : Effectiveness of Insect Sprays
5.7 Johnson Johnson: Quarterly Earnings per Johnson & Johnson Share
5.8 LifeCycleSavings : Intercountry Life-Cycle Savings Data

![LifeCycleSavings Data](image1)

5.9 Loblolly : Growth of Loblolly pine trees

![Loblolly Data and Fitted Curve](image2)
5.10 Nile: Flow of the River Nile

5.11 Orange: Growth of orange trees
5.12 OrchardSprays: Potency of Orchard Sprays

5.13 PlantGrowth: Results from an Experiment on Plant Growth
5.14 Puromycin: Reaction velocity of an enzymatic reaction

![Puromycin data and fitted Michaelis-Menten curves](image)

5.15 Seatbelts: Road Casualties in Great Britain 1969-84

![Seatbelt data and analysis](image)
5.16 Theoph : Pharmacokinetics of theophylline

5.17 Titanic : Survival of passengers on the Titanic
5.18 ToothGrowth : The Effect of Vitamin C on Tooth Growth in Guinea Pigs

5.19 UCBAdmissions : Student Admissions at UC Berkeley
5.20 UKDriverDeaths: Road Casualties in Great Britain 1969-84

5.21 USArrests: Violent Crime Rates by US State
5.22 USJudgeRatings : Lawyers’ Ratings of State Judges in the US Superior Court

5.23 VADeaths : Death Rates in Virginia (1940)
5.24 **WWWusage : Internet Usage per Minute**

![Graph of WWWusage](image)

5.25 **WorldPhones : The World’s Telephones**

![Graph of WorldPhones](image)

![Graph showing passenger miles over time.](image)

5.27 airquality : New York Air Quality Measurements

![Graph showing air quality measurements.](image)
5.28 anscombe : Anscombe’s Quartet of ”Identical” Simple Linear Regressions

![Anscombe's Quartet of "Identical" Simple Linear Regressions](image)

5.29 attenu : The Joyner-Boore Attenuation Data

![The Joyner-Boore Attenuation Data](image)
5.30 attitude : The Chatterjee-Price Attitude Data

5.31 beavers : Body Temperature Series of Two Beavers
5.32 cars: Speed and Stopping Distances of Cars

5.33 chickwts: Chicken Weights by Feed Type
5.34 discoveries: Yearly Numbers of Important Discoveries

![Graph showing yearly numbers of important discoveries over time.](image)

5.35 esoph: Smoking, Alcohol and (O)esophageal Cancer

![Diagram illustrating smoking, alcohol, and esophageal cancer data.](image)
5.36 euro: Conversion Rates of Euro Currencies

5.37 faithful: Old Faithful Geyser Data
5.38 **UKLungDeaths**: Monthly Deaths from Lung Diseases in the UK

![UKLungDeaths](image)

5.39 **freeny**: Freeny’s Revenue Data

![freeny](image)
5.40 islands : Areas of the World’s Major Landmasses

5.41 longley : Longley’s Economic Regression Data
5.42  morley : Michaelson-Morley Speed of Light Data

![Boxplot of morley data](image1)

5.43  mtcars : Motor Trend Car Road Tests

![Boxplot of mtcars data](image2)
5.44 nhtemp : Average Yearly Temperatures in New Haven

5.45 precip : Annual Precipitation in US Cities
5.46 presidents: Quarterly Approval Ratings of US Presidents

5.47 pressure: Vapor Pressure of Mercury as a Function of Temperature
5.48 quakes : Locations of Earthquakes off Fiji

5.49 sunspot.month : Monthly Sunspot Data, 1749-1997
5.50 sunspots: Monthly Sunspot Numbers, 1749-1983

5.51 swiss: Swiss Fertility and Socioeconomic Indicators (1888) Data
5.52 trees : Girth, Height and Volume for Black Cherry Trees

5.53 uspop : Populations Recorded by the US Census
5.54 volcano : Topographic Information on Auckland’s Maunga Whau Volcano

![Volcano Data Filled Contour Map](image)

5.55 warpbreaks : The Number of Breaks in Yarn during Weaving

![Warpbreaks Diagram](image)
5.56 women : Average Heights and Weights for American Women

6 lattice 0.13-8

6.1 environmental : Atmospheric environmental conditions in New York City
8.1 cu.summary : Automobile Data from 'Consumer Reports' 1990

8.2 kyphosis : Data on Children who have had Corrective Spinal Surgery
8.3 solder : Soldering of Components on Printed-Circuit Boards

9 survival 2.24