

r_for_newbies

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Learning Objectives

- ▶ Discover what R is
- ▶ Understand the advantages of R
- ▶ Find your way around RStudio
- ▶ Get to know the basic R building blocks
- ▶ Get your hands dirty in R

What is R?

- ▶ R is a free software environment for statistical computing and graphics
- ▶ It works with a wide variety of platforms

Why R?

1. You can do **anything** in R.
2. R facilitates reproducible science
3. Long term gain from upfront investment

RStudio - Making R a Breeze

- ▶ RStudio helps you write in R by:
 - ▶ sending your written code to R
 - ▶ 'syntax-highlighting'
 - ▶ keeping a history of your actions
 - ▶ giving you tools to fix your code when it doesn't work (debugging)

RStudio - A visual walkthrough

- ▶ Livecoding session
 - ▶ RStudio planes
 - ▶ Navigating directory structure
- ▶ There's a handy cheat sheet for R studio available:
(<https://www.rstudio.com/wp-content/uploads/2016/01/rstudio-IDE-cheatsheet.pdf>).
- ▶ Exercise: Set your working directory to your new project folder

R building blocks

- ▶ The 3 main building block of R are:
 - ▶ names
 - ▶ data: vectors and data frames
 - ▶ functions

Names

- ▶ We use the `<-` assignment operator to assign a name.

Data

- ▶ Vectors
- ▶ Dataframes

Functions

- ▶ Functions are little machines that perform specific tasks.