R for beginners

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R is a programming language.

It was developed by Robert Gentleman and Ross Ihaka in the late 1990's. They based R on the language S that came out of Bell Labs in the 1980's where John Tukey was encouraging people like John Chambers, Rick Becker and Allan Wilks to make better exploratory graphs of their data.

The software was inspired by a desire to make it easy for anyone to interact with their data through simple commands. It is what we call an interpreted language meaning we write a command and the machine immediately answers that one command.

Where can I download it?

We will see in the next few modules, exactly how to download and install the package. For the time, know that R is an enormous open access project that has hundreds of documents and thousands of extra packages created by volunteers that can be added on to do many particular tasks.

The main resource for R material is called the Comprehensive R Archive Network:

https://cran.r-project.org

Installation

We are going to use the executable version of the program called the binaries.

You don't need to buy any proprietary software and it works on Windows, Linux and Mac.

You won't need a textbook for the time being, as you can see on that website there are hundreds of documents to choose from.

The procedure of downloading and installing the software will be dependent on which operating system you have, we'll cover the Mac and Windows installations separately.

What does R look like?

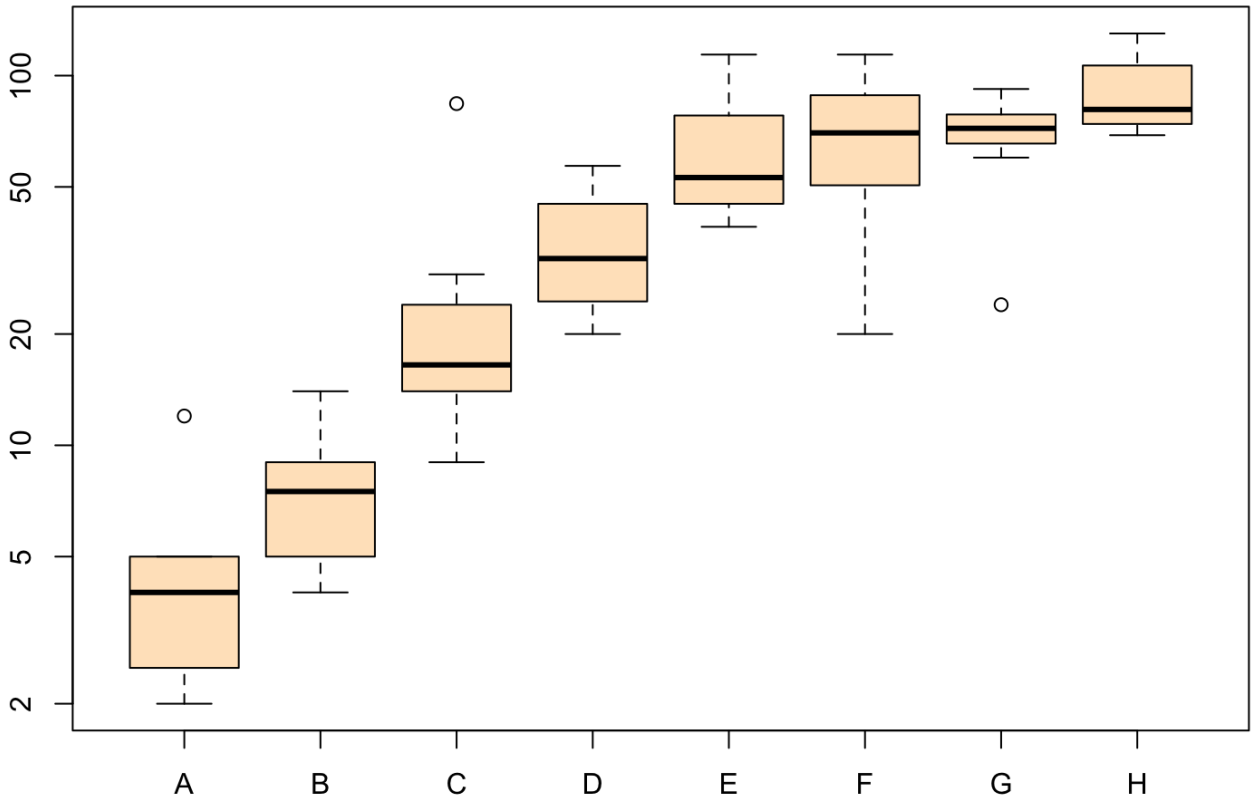
When you start using R, you'll see on the screen that the sign> will appear, this is called the **prompt** and we type short commands at this prompt followed by the return (enter) key.

For instance if you type

```
82374+ 1199
```

```
## [1] 83573
```

```
boxplot(decrease ~ treatment, data = OrchardSprays,
        log = "y", col = "bisque")
```



You can think of R as a type of super calculator and plotter that can deal with more than just single numbers or simple functions.