RBasic

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Outlook

Wednesday afternoon

- Introduction
- Data types
- Data manipulation
- Read Data
- Plotting

Thursday morning

- Exercise
- Work on your data
- Write functions

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Introduction

R is a free software.

R is a statistical software.

R is powerfull. (This presentation has been made in R)

R has a wide community of supporters

R is popular.

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Introduction

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R and RStudio installation

R => http://www.r-project.org

RStudio => http://www.rstudio.com

Data types

1. Vector

```r
x <- c(1,2,3,4,5,6,7,8,9)
x
```

```
## [1] 1 2 3 4 5 6 7 8 9
```

2. Matrix

```r
y <- matrix(x, nrow = 3)
y
```

```
##      [,1] [,2] [,3]
## [1,]    1    4    7
## [2,]    2    5    8
## [3,]    3    6    9
```

Data manipulation

```r
1 + 1
```

```
## [1] 2
```

```r
4 - 5
```

```
## [1] -1
```

```r
2 * 2
```

```
## [1] 4
```

```r
4 / 2
```

```
## [1] 2
```

Data manipulation

Built-in functions

```r
sqrt(25)
```

```
## [1] 5
```

```r
abs(-2)
```

```
## [1] 2
```

```r
log2(2)
```

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