

Intro to Programming with R for Political Scientists

Session 2: Base R and Tidyverse Basics

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Basic Operations & Atomic Structures

CalculatoR

10 %% 3 # Remainder ("Rest")

```
7+5
## [1] 12
[n] stands for the nth element printed to the console.
4*5+2/3^3 # Multiplication and division first, then addition and subtraction
## [1] 20.07407
# Modulo Operators:
10 %/% 3 # Integer division
## [1] 3
```

CalculatoR

```
# Relational and logical operators
3 < 4
## [1] TRUE
2 == 1 & 4 > 2 # == "equal to"; & "element wise logical AND"
## [1] FALSE
2 == 1 | 4 > 2 # | "element wise logical or"
## [1] TRUE
3 != 4 # != "not equal"
## [1] TRUE
```

CalculatoR

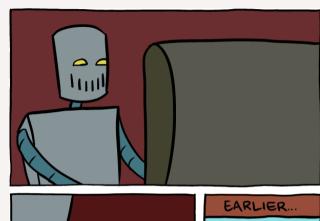
```
# Floating Points
0.1 + 0.2
```

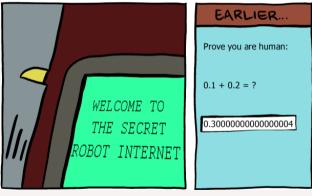
[1] 0.3

$$0.1 + 0.2 == 0.3$$

[1] FALSE

Because internally, computers use a format (binary floating-point) that cannot accurately represent a number like 0.1, 0.2 or 0.3 at all.





A Primer on OOP ("Object Oriented Programming")