Intro to Programming with R for Political Scientists

Session 2: Base R and Tidyverse Basi

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CalculatoR

CalculatoR

```
7+5 # [n] stands for the nth element printed to the console.
```

```
## [1] 12
```

```
4*5+2/3^3 # Multiplication and division first, then addition and subtraction
```

```
## [1] 20.07407
```

```
# Modulo Operators:

10 %/% 3 # Integer division
```

```
## [1] 3
```

```
10 %% 3 # Remainder ("Rest")
```

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

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
```

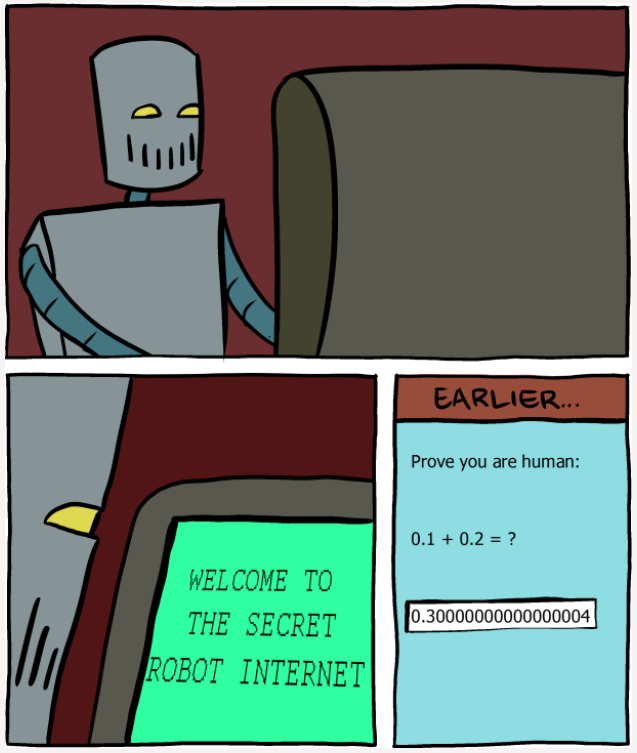
```
## [1] 0.3
```

```
0.1 + 0.2 == 0.3
```

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

Why?!

> **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")

Object Oriented Programming

> Everything is an object and everything has a name.