



Introduction To Programming in R (1)

R Foundations for Life Scientists

Marcin Kierczak

Computer program



- flow of data
- from one function to another
- each function does something to the data

How?

A **programming language** is a formal computer language or constructed language designed to communicate instructions to a machine, particularly a computer. Programming languages can be used to create programs to control the behavior of a machine or to express algorithms.

Wikipedia

Three things to think about

- what *types* of data can I process?
- how do I write what I want?
- when does it *mean* anything?

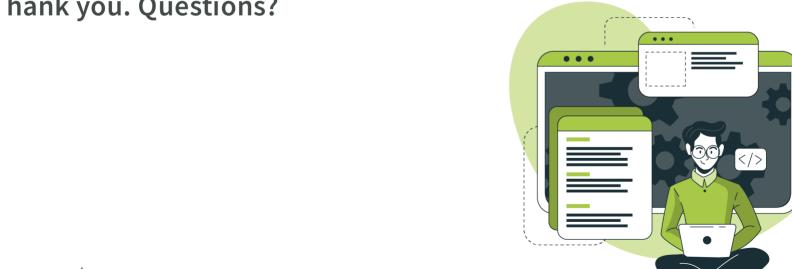
Three components of a language



- what types of data can I process type system
 - \circ int -1259
 - ∘ double 1.23 -5.74
 - o char a b test 79
- how do I write what I want syntax defined by a language grammar

- when does it *mean* anything *semantics*
 - Colorful yellow train sleeps on a crazy wave. has no generally accepted meaning
 - There is \$500 on his empty bank acount. internal contradiction

Thank you. Questions?



Graphics from freepik.com Created: 27-Sep-2021 • Roy Francis • SciLifeLab • NBIS