Most Programs Are Written in High-Level Languages

FORTRAN (FORmula TRANSlator)
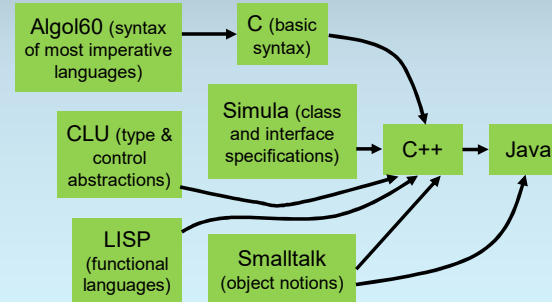◦ was introduced in 1954
◦ to help scientists express equations
  in a more natural way.

Since then,
◦ thousands of languages have been invented,
◦ with tens of them widely used commercially.

Most programs are written in these languages.

Language Evolution is Convoluted

Some Languages Can Be Compiled to Instructions

Languages can be **compiled** or **interpreted**.

Compiled languages include
FORTRAN, Pascal, C, and C++.

Code written in compiled languages
◦ is **translated to assembly language**
◦ by a program called a **compiler**.
◦ After assembly, the code **runs directly on a computer**.

Interpreted Languages Require an Interpreter to Execute

Interpreted languages include
Perl, Python, Javascript, and Java.

Code written in interpreted languages
◦ is **used as input to** another program
  (called **an interpreter**)
◦ **that executes the code** written in the
  interpreted language.

2