AMS 129
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## Programming Basics

- Simple Question;
- Computer = ???


## Programming Basics

- Simple Question;
- Computer = Calculator


## Programming Basics

- Simple Question;
- Computer $=\mathrm{A}$ dumbass Calculator


## Programming Basics

- Just addition/subtraction
- with binary numbers


## Programming Basics

- $10.0-1 \neq 9.0$
- $2.0 \neq 10.0 / 5.0$
- $3.2-\left(1.6^{*} 2.0\right) \neq 0.0$


## Programming Basics

- You need to give a clear and precise direction to the computer
- to do the right things!
- You have to have a doubt with the results every time.


## Languages

- Computer only speaks a 'binary' (or 'assembly lang.')
- Programming language is a bridge between human language and machine language.
- Compiler translates programing language into machine lang.


## Languages

- Compiled language
- $\mathrm{C} / \mathrm{C}++$
- Fortran
- Java
- Scripting language
- Python
- Ruby


## Languages

## Compiled Language

## Scripting Language



## Fortran

- Lecture note

