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Unit 1: Numbers

Numbers in Python work like numbers you've seen elsewhere.

- A. Numbers in Python
- B. Simple Math
- C. Modulus
- D. Exponents
- E. Order of Operations

Unit 2: Logic Expression

Let's now turn to how it handles inequalities — things that are either true or false.

- A. Booleans
- B. Boolean Expressions
- C. Combining Boolean Expressions

Unit 3: Words And Letters

Let's now turn to how it handles inequalities — things that are either true or false.

- A. Strings
- B. Multi-line Strings
- C. Adding and Multiplying Strings

Unit 4: Changing Text

Learn other ways to change strings.

- A. Changing Text
- B. Indexing
- C. Slicing

Unit 5: Variables

Variables in computer science are pretty different than those in math, even though they're called the same thing.

- A. Basics
- B. Naming Rules
- C. Collecting Input

Unit 6: Conditionals

If statements are how you direct Python to do something if something else is true.

- A. if
- B. else
- C. elif
- D. Nesting

Unit 7: Lists

Python offers a tool called lists to keep track of related "things," or values.

- A. Things that are alike
- B. Things in a list
- C. Adding to a list, Removing from a list

Unit 8: Loops

While loops tell the computer to do something while something else is true.

- A. While loops
- B. For loops

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Unit 9: Dictionaries

Dictionaries are another tool, built-in to Python, to store things. Things in dictionaries can be alike, too, though dictionaries are best used to translate keys to values.

- A. Storing information
- B. Adding values
- C. Getting values
- D. Removing values

Unit 10: Randomness

Sometimes when programming it's helpful to use random numbers.

- A. Random numbers
- B. Getting random numbers
- C. Randomness from a list

String Challenges

Lowercase Challenge: Make text all lowercase using string methods
Uppercase Challenge: Capitalize the first letter of a string
Switch Case Challenge: Make lowercase letters uppercase and vice versa
Aardvark Zebra Index Challenge: Return Aardvark if a string begins with 'a'
Reverse Slicing Challenge: Use Slicing to Reverse a String
Gerund Slicing Challenge: Use slicing to conjugate verbs
Oxford Comma Challenge: Correctly format a list of three things
Number of Things Challenge: How many things are there?
Abbreviator Challenge: Long words make you sad? You need an Abbreviator

Dictionary Challenges

US States Challenge
Morse Code Challenge

Type Challenges

Apples and Oranges Challenge