Introduction to Computer Programming
CSCI-UA 2

Data Types and Variables
Basic Data Types

Integers
Floating Point Numbers
Strings
Data Types and Variables

**Integer**

int

A whole number

Can be of unlimited size

Be careful not to use commas in your numbers, for example: 1,000
Floating point number
float

A number that contains a decimal point
Has minimum and maximum values
Limited precision
4 is not the same as 4.0
Arithmetic Operators
Lowest precedence to highest precedence

+    -
*    /
//
%
**
**String**

A sequence of one or more characters

A *string* of letters and numbers

Enclosed in quotation marks

Double quoted strings can contain single quotes and vice versa

Triple quotes can span multiple lines
String Operators

+  
*  
#
Variable

A name that refers to a value

An “assignment statement” gives a value to a variable

Variables remember things

Variables can change, too

= is Python’s assignment token
Variable Names

Can be of any length

Characters must be letters, numbers, or the underscore (_)

First character cannot be a number

Case sensitive

Python keywords cannot be used as variable names