Lesson 2.02: Strings vs Integers vs Floats

# Learning Objectives

* Define and identify: Casting, string, floating point, integer
* Describe different representations of data in python

# Materials/Preparation

* Lab worksheet handout
* Read through the handout so that you are familiar with the requirements and can assist students

# Pacing Guide

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| Duration | Description |
| 5 Minutes | Welcome, attendance, bell work, announcements |
| 10 Minutes | Lecture |
| 30 Minutes | Lab |
| 10 Minutes | Discussion |

# Instructor’s Notes

1. Lecture
   1. Types
      1. Talk about how data is represented in python that we’ve seen
      2. Interpreter needs ways of signifying this. In some languages types are explicitly stated. In python it’s a bit different. Use the type function to show the types of different numbers
   2. Converting Between types
      1. Casting: Can go from an into to a string and vice versa for input/output purposes
2. Lab
   1. Have students practice converting types in the interpreted mode
   2. Create a program that will halve whatever the user inputs
      1. Talk about some issues between integers and floats here
3. Discussion
   1. Ask a student to show their solution to each part. Call on a different student (either a volunteer or via cold calling) for part 1 and part 2.
      1. Note any places in which there may be multiple possible approaches. Ask for volunteers to describe differences in their code.