

## CS 100

### Homework 06

**Do** all of the items below and **submit** a text file created with the IDLE editor (or other editor) with the extension `.py` via Canvas. If you run into a problem, post to Canvas describing where you ran into trouble or email your instructor or classroom assistant, or ask your question during recitation hours. If you know the answer to someone's question on Canvas, post a response. You get course credit for asking and answering questions in Canvas.

- Read Chapter 3 (Functions) in the textbook.
- Read the Python tutorial section 4.6 (Defining Functions). The Python tutorial can be accessed through the documentation installed with IDLE:  
Help → Python Docs → Tutorial → 4. More Control Flow Tools → 4.6. Defining Functions  
If you are using an alternate IDE, visit:  
<https://docs.python.org/3/tutorial/controlflow.html#defining-functions>  
to browse the tutorial online.
- In the Python editor IDLE, create and save a Python file that is named, if your name is Harry Houdini, for example, `HW06_HarryHoudini.py` and begins with a comment containing your name, class and section, the posting date and number of the homework assignment.

1.
  - a. Write a function named *hasFinalLetter* that takes two parameters
    1. *strList*, a list of non-empty strings
    2. *letters*, a string of upper and/or lower case letters

The function *hasFinalLetter* should create and return a list of all the strings in *strList* that end with a letter in *letters*.

- b. Create three test cases, each consisting of a list of non-empty strings and a string of upper and/or lower case letters, for your function in Problem 1a. One of these tests should return the empty list. For each test case write two assignment statements and a function call that pass the test arguments to your function.

2.
  - a. Write a function named *isDivisible* that takes two parameters
    1. *maxInt*, an integer
    2. *twoInts*, a tuple of two integers

The function *isDivisible* should create and return a list of all the ints in the range from 1 to *maxInt* (not including *maxInt*) that are divisible of both ints in *twoInts*.

- b. Create three test cases, each consisting of a value for *maxInt* and a value for *twoInts*, for your function in Problem 2a. One of these tests should return the empty list. For each test case write two assignment statements and a function call that pass the test arguments to your function.