

3/5 in Class Work**Some review and some practice for the first exam
And some continuation of work with strings (Ch 5)**

Working in groups, clearly write out answers to these questions. Please number each one. Please don't erase until I take pictures.

Questions from Chapter 1: Computers and Programs

1. What is the fundamental question of computer science?
2. What is an algorithm?
3. Write a snippet of code that would display
Hello, World!
to the screen.
4. Write an algorithm for making a peanut-butter and jelly sandwich.

Questions from Chapter 2: Writing Simple Programs

5. What is an identifier?
6. What are literals, variables, and operators?
7. Distinguish between an expression and a statement in programming.
8. Which of the follow are legal identifiers? For each identifier that is not allowed, give a brief reason why.
 - (a) myName
 - (b) MyName
 - (c) _myName
 - (d) nameTwo
 - (e) name2
 - (f) 2ndName
 - (g) firstAndLastName
 - (h) first.last

(i) @myName

9. Write pseudocode for converting mass in kg to weight in lbs. There are 2.2 lbs in 1 kg. Accept a mass in kg from the user and output the weight in lbs.
10. Write the snippet of Python for converting mass in kg to weight in lbs. There are 2.2 lbs in 1 kg. Accept a mass in kg from the user and output the weight in lbs.
11. What does the template
`for <variable> in range(<expr>):`
describe?
12. Write the output of the following snippet of code:

```
for i in range(3):  
    print("Hello!")
```

End of Review/Practice

You will want to go back to your computer and open a new google colab file for this next part.

String Methods

Recall that a method refers to the stuff an object can do. From Ch 4 on graphics. An object knows stuff and can do stuff.

```
<object>.<method-name>(<param1>, <param2>, ...)
```

1. Starting on page 144, work through all the code examples (one liners) up through the bottom of p 145. (For now, don't type numbers2text.py)
2. Can you ask the user to input their full name as Last, First, save the string of both names in one variable, and then split that into two separate variables—one for first name and one for last?

For instant, I would enter Kintner, Jessica and the program would use the split method to create two variables, one with first and one with the last name.

(This kind of thing comes up a lot. People send you their excel file of students or employees or team members, and it's always in the wrong format and you have to convert like this.)

3. Now use the two variables to print out the name in usual order. (Mine would be Jessica Kintner.)
4. Now type in `numbers2text.py`.
 - (a) Explain in words what that for loop does
 - (b) Test your code on this example: 73 32 108 111 118 101 32 116 111 32 99 111 100 101 33
 - (c) What was the message?
5. Work all the examples in section 5.5.2
6. Jump to page 149 and type in `numbers2text2.py`
 - (a) Explain in words how this code works, and how it's different from the first one. (You may need to read from the beginning of 5.6 to understand it.)
 - (b) Test your code on this example: 71 111 44 32 71 97 101 108 115 33
 - (c) What was the message?
7. Jump to section 5.8.1 and read through to the Date Conversion code. Type in `dateconvert.py`
Can you explain how it works?
8. Work through all the examples in section 5.8.2