Announcements

- Test 1 is Thursday!
  - You must take the exam in your lecture section
  - Accommodations for test 1? Must fill out form on website
- See Regrades form on website
- See all new Forms on website – main page
- Assignment 4 extended due Monday
- No labs this week

Exam logistics

- Exam is in the regular classroom
- Only need a pen or pencil
- No scratch paper
- Will give you a reference sheet of Python information with the test (see resources page)
- Closed book, closed notes, closed neighbor
- Covers lecture, lab and assigned reading, assgnmts, apts
- Have put old quizzes back up as quiz review
  - This is NOT for a grade, for studying only

The best way to study

- Write code on paper!
- Resources page has old tests and solutions
  - Try writing code, then look at solutions
- Rewrite an APT
- Rewrite code we did in lecture
- Rewrite code we did in lab
What we have not done

• Tests from Fall 2014 on we have covered everything.
• If looking at old exams, note we have not done the following:
  – List comprehensions
  – Code in square brackets such as
    \[ y = [w \text{ for } w \text{ in } \text{alist}] \]
There may be other things…. If it looks strange, it might be we haven’t done it…. 

Understand

• What is the difference between:
  – [ ] and ( )
  – \( w = \) and \( w += \)
  – print value and assigning value to a variable
  – print and return
  – When do you print? When do you return?
  – Does a function print or return?
• if, for, range, strings, lists
  – Understand format and how they work
• Parameters vs arguments

Writing functions with formulae

bit.ly/101sp16-0216-1

Writing functions with formulae

• Using extra variables: can be really smart
  – Helps in making each line simple
  – Easy to correct if you've made a mistake

• See triangleArea, what about other math symbols and formula?
  – What do +, -, *, /, % do?
  – What about math.sqrt or 5**0.5 or math.sin …
Accumulating in a loop

- If you are going to return a string
  - Initialization, return value, how to "build it"

- If you are going to return an int (counter)
  - Initialization, return value, how to "build it"

- If you are going to return a list
  - Initialization, return value, how to "build it"

Counting 'a's in a string, 'fox' in a list?

- What Python functions/methods help
  - If you forget, how can you recreate yourself?
  - See exam Python reference sheet

Basic List/file Processing

bit.ly/101sp16-0216-2