“All your troubles are due to those ‘ifs’,” declared the Wizard. If you were not a Flutterbudget you wouldn’t worry.”
- The Emerald City of Oz by Frank Baum

## 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

## Announcements
- Test 1 is Thursday!
  - You must take the exam in your lecture section
  - Accommodations for test 1? Must fill out form on website
- Assignment 4 due Tuesday, Feb 21
- See Regrades form on website
- No labs this week
- No consulting hours Thurs night
- Exam 1 Review session – LSRC B101
  - Wednesday, 7:15pm
What we have not done

• Test 1 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:
  – \([\] \text{ and } ()\)
  – \(w = \text{ and } w +=\)
  – 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/101s17-0214-1
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 \texttt{triangleArea}, what about other math symbols and formula?
  – What do +, -, *, /, % do?
  – What about \texttt{math.sqrt} or \texttt{5**0.5} or \texttt{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/101s17-0214-2
Review Old Exam Questions