Announcements

- HW is due tomorrow
- New HW up today (take a look at it over the weekend - no extensions on this one!)

May work with new partner (which I recommend)

- Office hours today 10-11
Tkinter

Making GUI's

We've seen several examples:

- Buttons
- Scrolled listbars
- Events

Steps: root = Tk()

root.mainloop()
Pack

Adds the widget to the window. (See example TKEdit.py)

Always packs it in the indicated fashion.

Somewhat limited in terms of layout capabilities.
Grid layout

Let's you specify where it will go in row/column layout.

Also is easy to specify non-square buttons - use columns=span or row span.

See TkButtons.py
Geometry Layout

Lets you specify exact positions
(more like calligraphic)

See TkPlace.py
Having more windows can have actions create and destroy extra windows. Our example: (tk2win.py)

- Creates a window in the main script. A button in that window calls a function.

- That function creates an instance of a class which makes a second window (using Toplevel).

Toplevel - like frame, but new window.
Text Widget

This is an internal text editor. Let's the user enter text, which you can then "grab".

Ex: TkText.py
Final Example: Stopwatch

Two classes:
- First tracks data
- Second makes the window
Quiz: email to me by end of class.

Make a GUI.

Requirements:
- At least 2 different widgets.
- Some action to happen
  (so each widget has a command or command calls a function).