

COMP 141

intro to simplegraphics



1

Announcements

Reminders:

Program 2 – due tomorrow night by 11:55pm



2

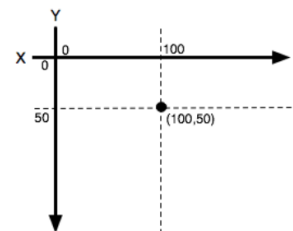
Using Graphics in Python

- Many programming languages include a **library** for computer graphics
 - A library is a pre-written collection of functions usually centered around a theme (graphics, networking, math, sound, etc.)
 - Using libraries (rather than starting from scratch) enables you to write programs faster
 - Libraries are centered around functions because we know functions are abstractions of algorithms.

3

The canvas

- All graphics in Python are drawn in a separate window called the **canvas**.
- The canvas is laid out similarly to the Cartesian plane, but with a flipped y-axis.



4

SimpleGraphics

- We learned about Turtle
 - Many other graphics libraries available
- Introducing simplegraphics
 - Not a built-in library
 - You need to have 2 files in the same folder as your program
 - simplegraphics.py
 - cs1graphics.py



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Your First Graphics Program

- Go to my Box.com code directory and copy **simplegraphics.py** and **cs1graphics.py** files into your own folder (same folder you save the rest of your python files).
- Make a new Python file and type in the following program.
- If you see the picture on the right, you're all set.
- Experiment with other functions on the handout.
- Try writing programs that draw the following:
 - a landscape (mountains, trees, houses, a cityscape, or something like that)
 - a self-portrait
 - A depiction of the solar system
 - the Mona Lisa
 - something else of your choice

```
from simplegraphics import *

def main():
    open_canvas(500, 500)
    draw_circle(250, 250, 100)
    close_canvas_after_click()

main()
```

