Announcements

- Unix help sessions: 12:30 and 5pm in 121 Ritter 72444

- HW2 is due Saturday. Comments are required!
Ch 2:

Objects: Several useful built-in objects in Python

Ex: lists, strings, int, float, tuple, booleans

Immutable versus mutable:

- tuple, string
- list
Methods:

Lists: p. 42
Strings: p. 56-52

Main differences: mutable versus immutable

Similarities: my_list [6]
my_string [6]
Numbers

Operations listed on p. 59

\[ \begin{align*}
+ & , - , \times, \div, \% \\
X^{\#} & \neq \quad \neq \quad \neq \quad \neq \quad \neq \quad \neq \\
abs(x) & = \text{absolute value}
\end{align*} \]

\[ \frac{2}{5} = 0.4 \]

\[ \frac{20}{5} = 4 \]
Booleans

Return True or False

Ex: <, >, <=, >=, !, ==

Can combine:

x < y and y < z

=> both things need to be true

x < y or y < z

=> one must be true

not (x < y)
**Modules**: used to import extra functions

One example: `cs1graphics`

**Others**:

```python
import math
math.pi
math.sqrt(2)
```

**OR**

```python
from math import pi, sqrt
sqrt(2)
```
Help:

If stuck, python has a "help" reference built in.

"help list"
**Practice**

P 2.17: Write a script that prompts the user to enter their name in the form: `firstName lastName`
Then output their name in the form: `lastName, firstName`

P 2.31: Write a program that asks the user to enter 2 integers separated by a space. It outputs the sum.

Ex: Enter 2 integers: 5 16
Their sum is 21.