Functions and Modules

CS 101 - Fall 2017
Professor Briggs
Last week:
  types (int, float, str)
  input (x = int(input('Enter an integer: ')))
  strings

This week:
  libraries
  functions

**Homework 2**
  error messages, strings, functions
Function calls in Python

- The parentheses are always present, even if there are no arguments.
- Functions can return a value called the return value.
- Arguments are zero or more items separated by commas, called ‘parameters’ in the function definition.
- Function names follow the same naming rules as variables.

Examples:

```python
>>> type(5)
<class 'int'>
>>> len('No more')
7
>>> int('42')
42
```
**Function definition**

- **def** is a keyword that says we are “defining” a function.

```
def function_name(parameters):
    """Documentation""
    statement1
    statement2
...
    return return_value
```

- The colon says we are starting a block, and all indented lines below belong in the same block.

- **return** is another keyword. It means stop executing this function and replace the original call with this value.

  It is optional. The function will return when it runs out of statements. It can also be used without the value if we just want to leave the function.

- We typically put documentation about the function here inside three quotes. This is what shows up when we call help().
Homework 2

- Topics: Error messages, strings, functions
- Homework description on go/cs101
- For help go to office hours or MBH 505 to see Ruben or MBH 505 Sun/Mon/Tue/Wed/Thurs 7-9pm
- Submit via script (see HW description)
- Due Wednesday 9/27 @ 11:59pm

Thonny