Beginning Python

Python is a *scripting language*. The Python interpreter responds to commands you give it, one line at a time. If you type the following into a Python interpreter:

```
>>> print( "Hello World!" )
```

it will respond

Hello, World!

Python is also a full programming language. We can type programs with elaborate structures into files, and then run those files through an interpreter. For example, we might type the following into file **howdy.py**:

```
name = input( "Who are you? " )
if name == "bob":
        print( "Bob Rules!" )
        print( "Yippee!")
else:
        print( "Howdy, " + name + "!" )
print( "bye bye" )
```

This asks for the user's name, responds accordingly, and then prints "bye bye".

Notice how the indentation of the program helps to reveal its structure. Most programming languages (Java, C, Basic, etc.) don't work this way; this is one of the great features of Python.

Here is another program:

```
print( "This finds the area of a rectangle." )
length = eval( input( "Enter the length: " ))
width = eval( input( "Enter the width: " ))
area = length*width
print( "The area is " + str(area) + "." )
```

Notice how easy this is to read. You should be able to read a Python program and see what it does without running it.