

Python Basics I

- There are many good tutorials on the web.
- Interactive (Python/Ctrl-D):
 - » python
 - » 1+1
 - » Ctrl-D
- Python Programs:
 - » python myProgram.py
- Loops:
 - » for i in range (10): Print i
- Indentation.
- Functions:
 - » def square (x):
 - » return x*x
- Reading files:
 - » dataFile = file ("myFile.txt", "r")
 - » for line in dataFile: print line
- Writing files:
 - » dataFile = file ("myFile.txt", "w")
 - » for l in range (10):
 - » dataFile.write ("d\n" % (square (l),))
 - » dataFile.close ()

Python Basics II

- Objects.
- Lists:
 - » `x = []`
 - » `for i in range (10): x.append (i)`
 - » `print x`
- Dictionaries:
 - » `x = {}`
 - » `for i in range (10): x[i] = (i+10)`
 - » `print x`
- Other important objects include strings and sets.
- Modules - importing:
 - » `Import glob, math, os`
 - » `From pBabel import XYZFile_ToSystem`
- Exercises:
 - Write the square roots of a series of numbers to a text file.
 - Read the text file and print out the squares of the numbers.
 - Count the number of characters, words and lines in files finishing with a given extension (e.g. `*.py`) in a directory.