Python Basics reserved words or terms are in bold

Example	Explanation or result
7 * 2	14
7 / 2	integer result of 7 ÷ 2 (3)
7 / 2.0	3.5
7 % 2	Remainder when 7 is divided by 2 (1)
7 ** 2	7 to the second power (49)
x = 7 + 2	x = 9
print "the value is", x	if x is 3, this prints: The value is 3
x = **input**("Enter number: "	Asks user to enter #, stores it in x
x = **raw_input**("Name: ")	Asks user to enter string, stores it in x
#this is a comment	comment--ignored
x **==** 0	tests if x equals 0
x **!=** 0	tests if x is not equal to 0
x **<** 0, x **>** 0	tests less than or greater than
x **<=** 0, x **>=** 0	tests less than or equal to, etc.
if x > 0: print x	prints x if x is positive
if x > 100: print "high"	prints "high" if x is greater than 100
else: print "low"	otherwise, prints 'low"
for i **in range** (10): print i	prints 0 to 9 on separate lines
for i in range (5,20,3): print i	prints 5,8,11,14,17, counting by 3's

word=”hello”
for i in word:
print i

```
i = 0
while i<10:                                  prints 0 to 9 on separate lines
        print i
        i = i+1
a = [2,3,4,7,11]                             Creates a list of 5 values called a
a[2]                                         retrieves the 3rd value in list a
                                                    (the first value is a[0].)
len(a)                                       returns the length of list a
a.append(13)                                 adds the value 13 to the end of list a
def average (x,y):
        return (x+y)/2.0                     defines a function called average that takes
                                             in 2 values, x and y, and returns their average
f = open("input .txt","r")                   use f to read from text file "input.txt"
f.readline                                   reads and retrieves one line from file f
eval ("3")                                   converts from string "3" to number 3
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List functions

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list.insert(i,x)                             inserts value of x into list at location list[i]
list.pop(i)                                  removes item at location list[i]
list.sort()                                  sorts the list (experiment with this)
list.reverse()                               reverses the list
list.index(x)                                returns the index # of a cell with value x
list.extend(L)                               appends a list onto a list
list.remove (x)                              removes any values of x from a list
list.count(x)                                counts how many times x appears in a list
```