Lab 1

Today you will gain some hands-on experience in programming by working with Python using an application called Jupiter Notebook. At your machine, run Jupyter Notebook by going to Start→All Programs→Jupyter Notebook. From this interface, you can evaluate expressions.

If you are working on your own laptop, you should download Python 2.7 at `http://www.python.org`. Also, the lecture notes and labs are on the website `http://www.addiscoder.com`

Exercise 1: Imagine evaluating the expressions below in the order given. What would they evaluate to (some of them will give errors)? Come up with an answer for each expression before typing it into Jupyter and see if you get it right.

```
>>> 5 + 4*3
>>> 5+4 * 3
>>> (5 + 4)*3
>>> (5 + 4.0)*3
>>> (5 + 4.0)/3
>>> 5 + 4.0/3
>>> 5 + 4.0//3
>>> 5+‘4’ * 3
>>> ‘5’+‘4’ * 3
>>> (‘5’+‘4’) * 3
>>> 2**3*3
>>> (2**3)*3
>>> 2**(3*3)
>>> [5]+‘4’ * 3
>>> [5]+[4] * 3
>>> [‘a’,5,2.0][2]
>>> x = [‘a’,5,2.0]
>>> x[0]
>>> x[1]
>>> x[1:2]
```

```
>>> x[0:3]
>>> x[0]*x[1]
>>> x[0]*x[2]
>>> x[1]+x[2]
>>> x[1]**x[2]
>>> x += x[1]*x
>>> x
>>> y = x[2:4]
>>> y
>>> x = x[0:2]
>>> x + y
>>> x = '123456789'
>>> x + y
>>> x[2:5]
>>> x[2:5]*x[2]
>>> y = [3,2,1]
>>> x[2:5] + x[y[2]]
>>> y = [1,2,3,4,5,6]
>>> y
>>> y[0:4] = [7]
>>> y
>>> not True or True
>>> not (True or True)
>>> x = 10
>>> x>20 or x%5=1
>>> x>20 or x%5==1
>>> x<20 or x%5==0
```

To do the remaining exercises, log into `https://cs124.seas.harvard.edu`.