

# Answer Key

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Explain Some Python Code

```
1 # this is a simple Python Program
2 #It shows how to define a variable,
3 #define a function and use a list and
4 #a simple for loop.
5
6 print "Hi everybody!"
7 x = 8
8 print x*2
9
10 def g(x):
11     return 2*x
12
13 print "Output 1"
14 print g(7)
15 print "#####"
16
17 list1 = [1,2,3,4,5,6,7,8,9,10]
18
19 print "Output 2"
20 for i in list1:
21     print g(i)
22 print "#####"
```

```
Hi everybody!
16
Output 1
14
#####
Output 2
2
4
6
8
10
12
14
16
18
20
#####
```

1. Retype, compile and execute the code using the Python compiler.
2. As part of your analysis, answer the following questions:
  - What is the purpose of the quotation marks used in print statements? **They tell the computer to print exactly what is inside the quotation marks.**
  - Is  $x = 8$  the same as  $8 = x$ ? **No, the order matters in variable declaration. The value on the right will be stored in the variable on the left.**
  - Does the indentation matter? **In the Python language, yes. Indented lines belong to the first non-indented line above.**
  - How does the 'for' loop work? **The for loop takes every element of list1, calls it 'i' for temporary computation, and performs an operation. In this case, every element is put into the function g(x).**
3. Next, make some changes to the code based on your analysis, then recompile and execute the code again. For example try  $8 = x$  instead of  $x = 8$  or change the  $x = 8$  to  $x = 3$ , etc. Did your changes to the code work the way you expected they would, based on your prior analysis and experience? Explain.

**Answers will vary.**