**Lists**

1) What does this print?

 l = [‘apple’, ‘banana’, ‘cherry’]

 print(l[3])

2) Write a line of code that prints the ‘VW’ from the list

 l = [‘apple’, ‘banana’, [‘Ford’, ‘GM’, ‘VW’], ‘cherry’]

3) What does this print? (Choices: Yes, No, it’s an error)
 a = [1,200]
 b = [3,4]

 if a < b:

 print(“yes”)

 else:

 print(“no”)

4) I have a big long list called ‘data’. I want to print it in sorted order. Write me some code that does that. (Hint: This is easy, don’t over think it)

**Slices**

1) What does this print?

 s = ‘ABCDEFG’

 print(s[3:5])

2) Write code that prints the last item of some list named ‘data’.

**Control Structures**

1) Make a loop that prints 3 upto 27 including the 3 and 27.

2) Make a loop that prints 6 downto -6 including the 6 and -6. It should count by 2’s, so it should go 6,4,2,0,-2,-4,-6.

3) For which values of temp does this print ‘too cold!’?

temp = XXXX

if temp > 100:

 print(“Too hot”)

elif temp < 32:

 print(“Below freezing”)

elif temp < 0:

 print(“too cold!”)

else:

 print(“I’m confuxed”)

4) Using the code above, for which values of temp does it print “I’m confuxed”?

**Regex**

1) Write me a regular expression three letter acronyms of capital letters.

FDA, FBI, BLM, and IRS all match.

NASA, EO, NASCAR , Fda, fbi, and irs do not match.

**Files**

1) Suppose I have a file with 1000 bytes in it (i.e. 1000 characters). I run the following code. How many bytes are in it when I’m done?

 f = open(“fred.txt”, “w”)

 f.write(“123”)

2) What does this code print?

|  |  |
| --- | --- |
|  a) It prints the number of lines b) It prints the number of words c) It prints the number of letters d) Anything else | total = 0f = open(“wilma.txt”, “r”)for thing in f: total += len(thing)print(total)  |

**Exceptions**

1) Assume the file betty.txt does not exist. What does this code print?

try:

 f = open(“betty.txt”, “r”)

 if not f:

 print(“No such file”)

except:

 print(“File not found”)

**Functions**

1) What does this code print?

 def foo(a = 1):

 print(a)

 foo(2)

2) **REPLACE**What does this code print?

 def fee(a):

 print(a)

 fee(a+1)

 fee(0)

**Other**

1) Write a line of code that prints “The number is X” for whatever the random number happens to be. For example, it might print “The number is 3” or “The number is 5”. It should print only one line.

 r = random.randint(1,100)

USE YOUR COMPUTER FOR THIS PART

DO ONE! JUST ONE.

Six points

1) Given the list [ 3, 1, 4, -10, 5, 9] find the number that is maximally distant from the mean. In other words, compute the mathematical average and tell which number is further from that. Hint: The average is 2 and the maximally distant number from 2 is the -10.

2)

3) Make me a program that draws a bulls eye. The rings should be colored red, green, and blue. The rings should be centered. All the rings should have the same width.

4) Make a program that prints the alphabetically last username in the file. The file is at

http://euclid.nmu.edu/~rappleto/Classes/CS202/Assignments/passwd.txt

Just print the username, nothing else.