Final Review 2013: Extra practice questions to do on your own

1. What is the output of the following program?

```
a = 1
b = 2

def fun ():
 a = 10
 b = 20

def fun1 (a,b,c,d,e):
 a = a + a
 b = b + b
 c = c + c
 d = ['x','y','z']
 e = "bar"

def fun2 (d,e):
 d[0] = "X"
 d[1] = "Y"
 d[2] = "Z"
 e = e + "c"
 return(e)

def start ():
 b = 3
 c = 4
 d = [10,'a',"foo"]
 e = "cps"
 print(a, b, c, d, e)
 fun ()
 print(a, b)
 fun1(a,b,c,d,e)
 print(a, b, c, d, e)
 fun2(d,e)
 print(d, e)

start()
```

2. Write a function called 'findHighest' that will find and return the highest grade in the list called 'grades' in the following program. You can assume that the list has already been properly initialized. The number of elements in the list is determined by the constant called 'SIZE'.

```
SIZE = 10
```

```
def start():
    grades = []
    initialize(grades)
    display(grades)
    highest = findHighest(grades)
    print highest

start()
```

3. For the following program write a function called 'fileWrite' that will take the list 'grades' as a parameter. It will write the grades to an output file called 'data.txt'. Each grade will reside on it's own line. You can assume that the constant SIZE will be used to determine the number of elements in the list.

```
SIZE = 10

def initialize():
    # Assume it creates the list properly and returns it back to the caller.
    return(grades)
```

```
def start():
    grades = initialize()
    fileWrite(grades)

start()
```

4. Write a function called 'isInteger' that will take the string 'aString' as a parameter. It will return true if the string is an integer and false otherwise (before doing this question you might want to look up what types of numbers belong to the set of integers if you're hazy on your mathematics).

```
def start():
    aString = input("Enter an integer value: ")
    if (isInteger(aString) == True):
        print("Integer")
    else:
        print("Not integer")

start()
```