Sample Coding Questions

Tuples

```
# Tuples are used to store multiple items in a single variable.
# A tuple is a collection which is ordered and unchangeable.
# Tuples are written with round brackets.
#Tuple items are ordered, unchangeable, and allow duplicate values.

myTuple = ("apple", "banana", "cherry")
print(myTuple)

# Tuples are immutable - meaning elements cannot be changed

myTuple1 = ("apple", "banana", "cherry", "apple", "cherry")
print(myTuple1)
print(len(myTuple1))
print(type(myTuple1))

tuple1 = ("apple", "banana", "cherry")
tuple2 = (1, 5, 7, 9, 3)
tuple3 = (True, False, False)
print(tuple1, tuple2, tuple3)

# x, y, z = 10,13,14
# print(x,y,z)
```

```
myTuple2 = tuple(("apple", "banana", "cherry")) # note the double round-brackets
print(myTuple2)
```

```
tuple1 = ("a", "b" , "c")
tuple2 = (1, 2, 3)

tuple3 = tuple1 + tuple2
print(tuple3)
```

```
fruits = ("apple", "banana", "cherry")
mytuple = fruits * 2

print(mytuple)
```

```
thistuple = ("apple", "banana", "cherry")
for x in thistuple:
  print(x)
```

```
thistuple = ("apple", "banana", "cherry")
for i in range(len(thistuple)):
  print(thistuple[i])
```

```
thistuple = ("apple", "banana", "cherry")
i = 0
while i < len(thistuple):
  print(thistuple[i])
  i = i + 1
```

```
thistuple = ("apple", "banana", "cherry")
print(thistuple[1])
```

```
thistuple = ("apple", "banana", "cherry")
print(thistuple[-1])
```

```
thistuple = ("apple", "banana", "cherry", "orange", "kiwi", "melon", "mango")
```

```
print(thistuple[2:5])

thistuple = ("apple", "banana", "cherry", "orange", "kiwi", "melon", "mango")
print(thistuple[:4])

thistuple = ("apple", "banana", "cherry", "orange", "kiwi", "melon", "mango")
print(thistuple[2:])


thistuple = ("apple", "banana", "cherry", "orange", "kiwi", "melon", "mango")
print(thistuple[-4:-1])


thistuple = ("apple", "banana", "cherry")
if "apple" in thistuple:
  print("Yes, 'apple' is in the fruits tuple")


thistuple = (1, 3, 7, 8, 7, 5, 4, 6, 8, 5)

x = thistuple.count(5)

print(x)
```

```
thistuple = (1, 3, 7, 8, 7, 5, 4, 6, 8, 5)

x = thistuple.index(8)

print(x)
```

```
x = ("apple", "banana", "cherry")
y = list(x)
y[1] = "kiwi"
x = tuple(y)
print(x)
```

```
thistuple = ("apple", "banana", "cherry")
y = list(thistuple)
y.append("orange")
thistuple = tuple(y)
print(thistuple)
```

```
thistuple = ("apple", "banana", "cherry")
y = ("orange",)
thistuple += y

print(thistuple)
```

```
thistuple = ("apple", "banana", "cherry")
y = list(thistuple)
y.remove("apple")
thistuple = tuple(y)
print(thistuple)
```

```
thistuple = ("apple", "banana", "cherry")
del thistuple
print(thistuple) #this will raise an error because the tuple no longer exists
```

```
fruits = ("apple", "banana", "cherry")
(green, yellow, red) = fruits

print(green)
print(yellow)
print(red)
```

```
fruits = ("apple", "banana", "cherry", "strawberry", "raspberry")
(green, yellow, *red) = fruits

print(green)
print(yellow)
print(red)
```

```
fruits = ("apple", "mango", "papaya", "pineapple", "cherry")
(green, *tropic, red) = fruits

print(green)
print(tropic)
print(red)
```