Programmers Journal - Unit 3 Lesson 3

I learned how to do the addition and multiplication of complex equations in my code and how to use isinstance. Also, I learned how to print all the items of a list. I feel like I understood this lesson very well and didn’t have a lot of difficulty completing the exercises and everything was done.

**Exercise: Write a for loop that displays all the values of the elements of a tuple, and also displays their index.**

t1 = ("apple", "banana", "cherry", "durian", "orange", "pineapple")

for i in range(len(t1)):

print("index:", i, t1[i])

**Exercise 11.1**

**def addComplex(c1, c2):**

**return (c1[0] + c2[0]), (c1[1] + c2[1])**

**def showComplex(c):**

**s = ""**

**if c[1] > 0:**

**s = "+"**

**return "({}{}{}i)".format( c[0], s, c[1] )**

**point1 = 1, -2**

**point2 = 3, 8**

**print(showComplex(point1), "+", showComplex(point2), "=", showComplex(addComplex(point1, point2)))**

**Exercise 11.2**

**def multiplyComplex(c1, c2):**

**return (c1[0]\*c2[0] - c1[1]\*c2[1]), (c1[0]\*c2[1] + c1[1]\*c2[0])**

**def showComplex( c ):**

**s = ""**

**if c[1] > 0:**

**s = "+"**

**return "({}{}{}i)".format( c[0], s, c[1] )**

**point1 = 1, 5**

**point2 = 2, 4**

**print(display\_complex(point1), "times", display\_complex(point2), "=", display\_complex(multiplyComplex(point1, point2)))**

**Exercise 11.3**

**inttuple = ( 1, 2, ( 3, 4 ), 5, ( ( 6, 7, 8, ( 9, 10 ), 11 ), 12, 13 ), ( ( 14, 15, 16 ), ( 17, 18, 19, 20 ) ) )**

**def integerInttuple(n):**

**for i in n:**

**if isinstance(i, int):**

**print(i)**

**else:**

**integerInttuple(i)**

**integerInttuple(inttuple)**

**Exercise: Write a while loop to print the elements of a list**

fruitlist = ["apple", "banana", "cherry", 27, 3.14]

i = 0

print( len( fruitlist ) )

while i < (len(fruitlist)):

print(fruitlist[i])

i += 1

numlist = [314 , 315, 642, 246, 129, 999]

print( max( numlist ) )

print( min( numlist ) )

print( sum( numlist ) )

print( 100 in numlist )

print( 999 in numlist )