Assignment Day 4

Question 1 :

Research on whether addition, subtraction, multiplication, division, floor division and modulo operations be performed on complex numbers. Based on your study, implement a Python program to demonstrate these operations.

```
a = 1+2j
b = 2+4j
addition = a+b
subtraction = a-b
multiply = a*b
division = b/a
# floor_division = b//a
# MODULUS = b % a


print(division)
print(multiply)
print(subtraction)
print(addition)
print("MODULUS CAN'T BE DONE ")
print('''
don't think the // operator applies to complex numbers,
e.g. 1 / 1j gives you -1j as expected but 1 // -1j
throws an error: TypeError: can't take floor of complex number..
This is probably because there is no natural ordering of complex numbers unlike i
```

```
(2+0j)
(-6+8j)
(-1-2j)
(3+6j)
MODULUS CAN'T BE DONE

don't think the // operator applies to complex numbers,
e.g. 1 / 1j gives you -1j as expected but 1 // -1j
throws an error: TypeError: can't take floor of complex number..
This is probably because there is no natural ordering of complex numbers unlike integ
```

Question 2 :

Research on range() functions and its parameters. Create a markdown cell and write in your own words (no copy-paste from google please) what you understand about it. Implement a small program of your choice on the same.

- range(start, stop, step)
- range(n) the range function gives the sequence from start 0 to 'n-1' here 'n' is mentioned closed brackets after the word 'range'. if only one number in mentioned in the closed brackets.
- range(start, stop) The range function gives the sequence from start 0 to the number given in the closed brackets
    - ex1:- range(10) will give the sequence 0 1 2 3 4 5 6 7 8 9 , but not 10
    - ex2:- range(5, 10) will give sequence 5 6 7 8 9 , but not 10
    - ex:- range(2, 10, 2) will give sequence 2 4 6 8 , but not 10
- If function has two parameters first is start and second is limit not the end of the sequence
- The range function has it hard parameter it is used per the cap or for the the jump between start and the end of the sequence
- if the range is printed using print function we cant see the sequence because of the range function is a generator

Question 3:

Consider two numbers. Perform their subtraction and if the result of subtraction is greater than 25, print their multiplication result else print their division result

```
a = 5
b = 2
c = a-b
if c >25:
  print (a*b, 'Multiplication of ',a,' and ',b)
else:
  print(a/b, 'Divisionof ',a,' and ',b)
```

```
2.5 Divisionof  5  and  2
```

Question 4:

Consider a list of 10 elements of integer values. If the number in the list is divisible by 2, print the result as "square of that number minus 2".

```
a = [1,23,4,5,6,7,88,50,79,40]
for i in a:
  if i%2 == 0:
    b = True
  else:
    b = False
if b:
  print("square of that number minus 2")
```

```
square of that number minus 2
```

didn't get the quetion correct "' you want print multiple times or one time "'

```
a = [1,23,4,5,6,7,88,50,79,40]
for i in a:
  if i%2 == 0:
    print("square of that number minus 2", i)
```

```
square of that number minus 2 4
square of that number minus 2 6
square of that number minus 2 88
square of that number minus 2 50
square of that number minus 2 40
```

Question 5:

Consider a list of 10 elements. Print all the elements in the list which are greater than 7 when that number is divided 2.

```
a = [100,400,1,2,7,55,88,66,9]

for i in a:
  if i/2 > 7:
    print(i)
```

```
100
400
55
88
66
```

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