Q. Declare a complex number and store it in a variable.
Check the type and print the id of the same.

Q. Arithmetic Operations on complex number
Take two different complex numbers.
Store them in two different variables.
Do below operations on them:-
   Find sum of both numbers
   Find difference between them
   Find the product of both numbers.
   Find value after dividing first num with second number
   Find the result of the first num to the power of the second number.

Q. Comparison Operation not applicable between instance of complex values.
Object reusability concept is not applicable on complex number

Q. Equality Operator
Take two different complex numbers.
Store them in two different variables.
Equate them using equality operators (==, !=)
Observe the output(return type should be boolean)

Q. Logical operators
Observe the output of below code
Cross check the output manually

```
print(10+20j and 20+30j)    #20+30j
#---------------------------------------->Output is 20+30j

print(0+0j and 20+30j)      #0+0j
#---------------------------------------->Output is 0j

print(20+30j and 0+0j)      #0+0j
#---------------------------------------->Output is 0j

print(0+0j and 0+0j)        #0+0j
#---------------------------------------->Output is 0j

print(10+20j or 20+30j)     #10+20j
#---------------------------------------->Output is 10+20j
```

```
print(0+0j or 20+30j)       #20+30j
#---------------------------------------->Output is 20+30j

print(20+30j or 0+0j)       #20+30j
#---------------------------------------->Output is 20+30j

print(0+0j or 0+0j)         #0+0j
#---------------------------------------->Output is 0j

print(not 10+20j)           #False
#---------------------------------------->Output is False

print(not 0+0j)             #True
#---------------------------------------->Output is True
```

Q. What is the output of the expression inside the print statement. Cross check before running the program.

```
a = 10+20j
b = 10+20j
print(a is b)       #False   #True or False?
print(a is not b)   #True    #True or False?
```

Q. Membership operation

in, not in are two membership operators and it returns boolean value

```
print('2.7' in 'Python2.7.8')                      #True
print(10+20j in [10,10.20,10+20j,'Python'])        #True
print(10+20j in (10,10.20,10+20j,'Python'))        #True
print(30+40j in {1,20.30,30+40j})                  #True
print(30+40j in {1:100, 2.3:200, 30+40j:300})      #True
print(10 in range(20))                             #True
```