In [8]:

```python
a = 10+2j
print(type(a))
print(id(a))

b=15+6j

c= a+b
print(c)
c= a-b
print(c)
c= a*b
print(c)
c= a/b
print(c)
c = a**b
print(c)

print(a==b)
print(a!=b)

print(10+20j and 20+30j)
print(0+0j and 20+30j)
print(20+30j and 0+0j)
print(0+0j and 0+0j)
print(10+20j or 20+30j)
print(0+0j or 20+30j)
print(20+30j or 0+0j)
print(0+0j or 0+0j)
print(not 10+20j)
print(not 0+0j)

a = 10+20j
b = 10+20j
print(a is b)
print(a is not b)

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

```
<class 'complex'>
2011529797680
(25+8j)
(-5-4j)
(138+90j)
(0.6206896551724139-0.1149425287356322j)
(-154060044019484.34-380565548068396.2j)
False
True
(20+30j)
0j
0j
0j
(10+20j)
```