

In [3]:

```
a=120
b=120
print(id(a))
print(id(b))
```

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In [1]:

```
#Type and memory
a=5
print(type(a))
print(id(a))
```

<class 'int'>

140306649639344

In [5]:

```
a=257
b=257
print(id(a))
print(id(b))
print(a==b)
```

140306655047728

140306655048528

True

In [7]:

```
#Assignment Operators
a=10
b=3
print(a+b)
print(a-b)
print(a*b)
print(a/b)
print(a%b)
print(a//b)
print(a**b)
```

13

7

30

3.3333333333333335

1

3

1000

In [10]:

```
#comparison operations
a=147
b=163
print(a>b)
print(a<b)
print(a>=b)
print(a<=b)
```

False

True

False

True

In [11]:

```
#Equality Operations
a=69
b=87
print(a==b)
print(a!=b)
```

False

True

In [13]:

```
#Logical Operations
print(10 and 20)
print(0 and 20)
print(20 and 0)
print(0 and 0)
print(True and False)
print(True and True)

print("-----")

print(10 or 20)
print(0 or 10)
print(10 or 0)
print(0 or 0)
print(True or False)
print(False or False)

print("-----")

print(not 10)
print(not True)
print(not 0)
```

```

20
0
0
0
False
True
-----
10
10
10
0
True
False
-----
False
False
True

```

In [14]:

```
#BitWise Operations
```

```

print(10 & 20)
print(10 | 20)
print(10 ^ 20)
print(~10)
print(10>>2)
print(10<<2)

```

```

0
30
30
-11
2
40

```

In [21]:

```
#ideentity Operations(Comapres address)
```

```

a=256
b=256
print(a is b)
print(a is not b)

a=257
b=257
print(a is b)
print(a is not b)

```

```

True
False
False
True

```

```
In [22]: print(10+(10*32)//2**5&20+(-(10))<<2)
```

4

```
In [25]: #Membership operations
print('2' in 'python 2.7.9')
print(10 in [10,34,10+54j,'java'])
print(5 in {1,5,6})
print(3 in {1:100,2:200,3:300})#dictionary
print(2 in range(20))
```

True

True

True

True

True

```
In [28]: a=0b1010000 #binary
print (a)
```

```
b=0o7436 #octa
print(b)
```

```
c=0xfade #hexa
print(c)
```

```
print(bin(80))
```

```
print(oct(9876))
```

```
print(hex(9865))
```

```
print(bin(a))
```

```
print(bin(b))
```

```
print(oct(c))
```

```
print(oct(b))
```

```
print(hex(a))
```

```
print(hex(b))
```

```
80
3870
64222
0b1010000
0o23224
0x2689
0b1010000
0b111100011110
0o175336
0o7436
0x50
0xf1e
```

In []: