

## Introduce to ID()

```
In [2]: num=5  
id(num)
```

```
Out[2]: 140731339061816
```

```
In [3]: name='nit'  
id(name)
```

```
Out[3]: 1385177715728
```

```
In [4]: a=10  
id(a)
```

```
Out[4]: 140731339061976
```

```
In [5]: b=a
```

```
In [6]: id(b)
```

```
Out[6]: 140731339061976
```

```
In [7]: id(10)
```

```
Out[7]: 140731339061976
```

```
In [8]: k=10  
id(k)
```

```
Out[8]: 140731339061976
```

```
In [9]: a=20  
id(a)
```

```
Out[9]: 140731339062296
```

```
In [10]: id(b)
```

```
Out[10]: 140731339061976
```

## Data Structure

Range()

```
In [12]: r=range(0,10)  
r
```

```
Out[12]: range(0, 10)
```

```
In [13]: type(r)
```

```
Out[13]: range
```

```
In [14]: list(range(0,10))
```

```
Out[14]: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
In [15]: r1=list(r)  
r1
```

```
Out[15]: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

```
In [16]: even_number=list(range(2,10,2))  
even_number
```

```
Out[16]: [2, 4, 6, 8]
```

## Operator's in python

### Arithmetic Operatos

```
In [18]: x1,y1=10,5
```

```
In [19]: x1+y1
```

```
Out[19]: 15
```

```
In [20]: x1-y1
```

```
Out[20]: 5
```

```
In [21]: x1*y1
```

```
Out[21]: 50
```

```
In [22]: x1/y1
```

```
Out[22]: 2.0
```

```
In [23]: x1//y1
```

```
Out[23]: 2
```

```
In [24]: x1%y1
```

```
Out[24]: 0
```

```
In [25]: x1**y1
```

```
Out[25]: 100000
```

```
In [26]: 2**3
```

```
Out[26]: 8
```

### Assignment Operator

```
In [27]: x=2
```

```
In [28]: x=x+2  
x
```

```
Out[28]: 4
```

```
In [29]: x+=2  
x
```

```
Out[29]: 6
```

```
In [30]: x+=2  
x
```

```
Out[30]: 8
```

```
In [31]: x*=2  
x
```

```
Out[31]: 16
```

```
In [32]: x-=2  
x
```

```
Out[32]: 14
```

```
In [33]: x/=2  
x
```

```
Out[33]: 7.0
```

```
In [34]: a,b=5,6
```

```
In [35]: a
```

```
Out[35]: 5
```

```
In [36]: b
```

```
Out[36]: 6
```

### Unary Operator

```
In [37]: n=7
```

```
In [38]: m=-(n)  
m
```

```
Out[38]: -7
```

```
In [39]: n
```

```
Out[39]: 7
```

```
In [40]: -n
```

```
Out[40]: -7
```

## Relational Operator

```
In [41]: a=5  
        b=7
```

```
In [42]: a==b
```

```
Out[42]: False
```

```
In [43]: a<b
```

```
Out[43]: True
```

```
In [44]: a>b
```

```
Out[44]: False
```

```
In [45]: a=10
```

```
In [46]: a!=b
```

```
Out[46]: True
```

```
In [47]: b=10
```

```
In [48]: a==b
```

```
Out[48]: True
```

```
In [49]: a>=b
```

```
Out[49]: True
```

```
In [50]: a<=b
```

```
Out[50]: True
```

```
In [51]: a<b
```

```
Out[51]: False
```

```
In [52]: a>b
```

```
Out[52]: False
```

```
In [53]: b=7
```

```
In [54]: a!=b
```

```
Out[54]: True
```

## Logical Operator

```
In [55]: #AND, OR, NOT
```

```
In [56]: a=5  
        b=4
```

```
In [57]: a<8 and b<2
```

```
Out[57]: False
```

```
In [58]: a<8 or b<2
```

```
Out[58]: True
```

```
In [59]: a>8 or b<2
```

```
Out[59]: False
```

```
In [60]: x=False  
        x
```

```
Out[60]: False
```

```
In [61]: not x
```

```
Out[61]: True
```

```
In [62]: x=not x  
        x
```

```
Out[62]: True
```

```
In [63]: x
```

```
Out[63]: True
```

```
In [64]: not x
```

```
Out[64]: False
```

```
In [ ]:
```