

```
In [1]: a=5  
        b=4
```

```
In [3]: a<8 and b<5
```

```
Out[3]: True
```

```
In [4]: hex(0o74)
```

```
Out[4]: '0x3c'
```

```
In [5]: oct(0x3c)
```

```
Out[5]: '0o74'
```

```
In [10]: temp=a1  
         a1=5  
         b1=7  
  
         print(a1)  
         print(b1)
```

```
-----  
NameError                                Traceback (most recent call last)  
Cell In[10], line 1  
----> 1 temp=a1  
      2 a1=5  
      3 b1=7  
  
NameError: name 'a1' is not defined
```

```
In [ ]: x=6  
        y=7
```

```
In [12]: x,y = y,x
```

```
-----  
NameError                                Traceback (most recent call last)  
Cell In[12], line 1  
----> 1 x,y = y,x  
  
NameError: name 'y' is not defined
```

```
In [19]: a=4000  
        a>>30
```

```
Out[19]: 0
```

```
In [20]: a=10  
        a>>3
```

```
Out[20]: 0
```

```
In [ ]: 0000 1010 0000
```

Arithmetic Operator

```
In [1]: x,y=5,10
```

```
In [2]: x+y
```

```
Out[2]: 15
```

```
In [3]: x-y
```

```
Out[3]: -5
```

```
In [4]: x*y
```

```
Out[4]: 50
```

```
In [5]: x/y
```

```
Out[5]: 0.5
```

```
In [6]: x//y
```

```
Out[6]: 0
```

```
In [7]: x%y
```

```
Out[7]: 5
```

```
In [8]: x**y
```

```
Out[8]: 9765625
```

```
In [ ]: ASSIGNMENT OPERATOR
```

```
In [16]: p=2  
p
```

```
Out[16]: 2
```

```
In [20]: p=p+2  
p
```

```
Out[20]: 6
```

```
In [21]: p+=3
```

```
In [22]: p
```

```
Out[22]: 9
```

```
In [29]: p*=2  
p
```

```
Out[29]: 24
```

```
In [30]: p*-2
```

```
Out[30]: -48
```

```
In [31]: p
```

```
Out[31]: 24
```

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

```
Out[32]: 22
```

```
In [33]: p/2
```

```
Out[33]: 11.0
```

```
In [35]: p/=2  
p
```

```
Out[35]: 5.5
```

```
In [36]: p//2
```

```
Out[36]: 2.0
```

```
In [38]: k,v=7,9  
print(k)  
print(v)
```

```
7
```

```
9
```

```
In [39]: n=7  
n
```

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

```
In [41]: m=-(n)  
m
```

```
Out[41]: -7
```

```
In [42]: n
```

```
Out[42]: 7
```

```
In [43]: -n
```

```
Out[43]: -7
```

RELATIONAL OPERATOR

```
In [44]: a=5  
b=7  
a<b
```

Out[44]: True

In [45]: `a>b`

Out[45]: False

In [46]: `a==b`

Out[46]: False

In [47]: `a!=b`

Out[47]: True

In [50]: `b=5`

In [51]: `a==b`

Out[51]: True

In []: LOGICAL OPERATOR

In [52]: `r=5`
`k=7`
`r<k and r>k`

Out[52]: False

In [56]: `x=False`
`x`

Out[56]: False

In [57]: `not x`

Out[57]: True

In [59]: `x=not x`
`x`

Out[59]: False

In [60]: `x`

Out[60]: False

NUMBER SYSTEM COVERSION

In [62]: `50`

Out[62]: 50

In [63]: `bin(50)`

Out[63]: '0b110010'

```
In [64]: int(0b110010)
```

```
Out[64]: 50
```

```
In [65]: oct(49)
```

```
Out[65]: '0o61'
```

```
In [66]: bin(0o61)
```

```
Out[66]: '0b110001'
```

```
In [67]: int(0o61)
```

```
Out[67]: 49
```

```
In [68]: oct(0b110001)
```

```
Out[68]: '0o61'
```

```
In [69]: oct(25)
```

```
Out[69]: '0o31'
```

```
In [70]: oct(19)
```

```
Out[70]: '0o23'
```

```
In [71]: hex(16)
```

```
Out[71]: '0x10'
```

```
In [72]: hex(22)
```

```
Out[72]: '0x16'
```

SWAPPING

```
In [73]: a=5  
         b=7
```

```
In [74]: a=b  
         b=a
```

```
In [75]: print(a)  
         print(b)
```

```
7
```

```
7
```

```
In [76]: a1=10  
         b1=5
```

```
In [77]: temp=a1  
         a1=b1  
         b1=temp
```

```
print(a1)
print(b1)
```

5
10

```
In [104... a2=4
b2=7
a2 = a2 + b2
b2 = a2 - b2
a2 = a2 - b2
print(a2)
print(b2)
```

7
4

```
In [106... a,b = b,a
```

```
In [107... print(a,b)
```

5 12

```
In [111... c=10
d=15

c = c ^ d
d = c ^ d
c = c ^ d

print(c)
print(d)
```

15
10

```
In [112... c,d
```

```
Out[112... (15, 10)
```

```
In [ ]: BIWISE OPERATOR
```

```
In [113... ~10
```

```
Out[113... -11
```

```
In [114... ~13
```

```
Out[114... -14
```

```
In [115... 12&13
```

```
Out[115... 12
```

```
In [116... 15|14
```

```
Out[116... 15
```

In [117... `35&40`

Out[117... 32

In [118... `35|40`

Out[118... 43

In [119... `25^30`

Out[119... 7

In [120... `16^4`

Out[120... 20

In [121... `bin(16)`

Out[121... '0b10000'

In [122... `bin(4)`

Out[122... '0b100'

In [123... `10<<3`

Out[123... 80

In [125... `10>>3`

Out[125... 1

In []: