

```

1 ## 1. Comparison Operators
2
3 1. ">" --> Grater Than.
4 2. "<" --> Less Than.
5 3. ">=" --> Grater Than Or Equal To.
6 4. "<=" --> Less than or Equal To.
7 5. "==" --> Equal To.
8 6. "!=" --> Not Dqual To.

```

```

In [2]: 1 a=10
        2 b=20
        3 print("a>b is",a>b)
        4 print("a<b is",a<b)
        5 print("a>=b is",a>=b)

```

a>b is False
a<b is True
a>=b is False

```

In [5]: 1 a="Arman"
        2 b="Aryan"
        3 print("a>b is",a>b)
        4 print("a<b is",a<b)
        5 print("a>=b is",a>=b)
        6 print("a==b is",a==b)
        7 print("a!=b is",a!=b)

```

a>b is False
a<b is True
a>=b is False
a==b is False
a!=b is True

```

In [6]: 1 print(True>=True)
        2 print(19>384<484>39<944)

```

True
False

```

1 ## 2. Logical Operators
2
3 1. and-->If both argujments are true than only result is true.
4 2. or--> If atleast one argument is True than result is true.
5 3. not-->complement.
6 4. ex. True and false, True or False, not True, not False
7
8 ### 2.1 For non boolean type behaviour
9
10 1. and--> X and Y --> If x evaluates to false return X oterwise return Y.
11 2. or--> X or Y --> If X evaluates to true trturn X otherwise return Y.
12 3. not--> not X --> If x evaluates to false than result is true otherwise False.
13 4. ex. 0 means False, non-zero means True, Empty string means false.

```

```

1 ## 3. Turnary or Conditional Operators
2
3 #### Syntax
4 1. X= "Firstvalue" if 'conition' else "second value"

```

```

In [10]: 1 age=int(input("Enter age."))
        2
        3 x="Adult" if age>=18 else "minor"
        4 print(x)

```

Enter age.23
Adult

```

1 ## 4. Assignment Operators
2
3 1. "=", "+=", "-=", "*=", "/=", "//=", "%=", "**=".

```

```
In [12]: 1 x=10
2 x+=20
3 x-=10
4 x*=2
5 x/=5
6 x//=10
7 x%=2
8 x**=5
9 print(x)
```

0.0

1 ## 5. Memberdhip Operators

- 2
- 3 1. in --> Returns True if given object is present in specific collection.
- 4 2. not in--> Returns True if given object id not present in specific collection.

```
In [15]: 1 x="Hello, Python is very easy!"
2 print("l" in x)
3 print("d" not in x)
4 a=[1,2,3,4,5,6]
5 print(10 in a)
```

True
True
False

1 ## 6.Operator Precedence

- 2
- 3 [!\[Operator-Precedence-and-Associativity-in-Python.jpg\]\(attachment:Operator-Precedence-and-Associativity-in-Python.jpg\)](#)

```
In [17]: 1 print(3+10*2)
2 print((3+10)*2)
3 print((3+10)*2/2+(63-55)//3)
```

23
26
15.0

1 ## 7. Programs

```
In [19]: 1 # WAP to find the area of the triangle.
2 b=int(input("Enter base of triangle. "))
3 h=int(input("Enter height if triangle. "))
4 a=0.5*b*h
5 print("Erea of triangle is :",a)
```

Enter base of triangle. 23
Enter height if triangle. 56
Erea of triangle is : 644.0

```
In [20]: 1 # WAP to find the area of the CIRCLE.
2 import math
3
4 p=math.pi
5 r=int(input("Enter radius of circle. "))
6 a=p*r*r
7 print("Erea of circle is :",a)
```

Enter radius of circle12
Erea of circle is : 452.3893421169302

```
In [21]: 1 # WAP to swap value of two variables
2 a=int(input("Enter value of a. "))
3 b=int(input("Enter value of b. "))
4 temp=0
5 temp=a
6 a=b
7 b=temp
8 print("Value of a is :",a)
9 print("Value of b is :",b)
```

Enter value of a. 4
Enter value of b. 56
Value of a is : 56
Value of b is : 4

```
In [23]: 1 a=int(input("Enter value of a. "))
2 b=int(input("Enter value of b. "))
3 a=a+b
4 b=a-b
5 a=a-b
6 print("Value of a is :",a)
7 print("Value of b is :",b)
```

Enter value of a. 23
Enter value of b. 32
Value of a is : 32
Value of b is : 23

```
In [26]: 1 #WAP to concert ferenhit to celcius
2 c=float(input("Enetr celcius value."))
3 c1=(f-32)*(5/9)
4 print(c1)
5 f=float(input("Enetr ferenhit value."))
6 f1=c*(5/9)+32
7 print(f1)
```

Enetr celcius value.123
-3.8888888888888893
Enetr ferenhit value.12654
100.33333333333334

```
In [32]: 1 # WAP TO CONVERT GIVEN DAYS into year month and days
2 a=int(input("Enter days."))
3 year=a//365
4 month=(a%365)//30
5 days=(a%365)%30
6 print("Years : ",year," Months : ",month," Days : ",days)
```

Enter days.5555
Years : 15 Months : 2 Days : 20

```
In [33]: 1 a=20
2 b=10
3 c=30
4
5 print(a>b and a<c)
6 print(a>b or a>c)
7 print(not c>b)
8 print(not c>a)
```

True
True
False
False

```
In [37]: 1 #WAP to check the givrn number is poditive or negative uding conditional operator.
2 c=int(input("Enter number."))
3 x="Positive" if c>0 else "Negative"
4 print("the number is :",x)
```

Enter number.25
the number is : Positive

```
In [39]: 1 #WAp ofr sven or odd
2 c=int(input("Enter number."))
3 x="Odd" if c%2!=0 else "Even"
4 print("the number is :",x)
```

Enter number.54
the number is : Even

```
In [43]: 1 #WAP to find number of notes.  
2 #notes are 10,20,50,100,200,500,2000  
3 a=int(input("Enter rupees"))  
4 th=a//2000  
5 fh=a//500  
6 tth=a//200  
7 oh=a//100  
8 f=a//50  
9 tw=a//20  
10 te=a//10  
11 print("2000 :",th," 500 :",fh," 200 :",tth," 100 :",oh," 50 :",f," 20 :",tw," 10 :",te)
```

Enter rupees880

2000 : 0 500 : 1 200 : 4 100 : 8 50 : 17 20 : 44 10 : 88

```
In [ ]: 1
```