Arithmetic Operators

```
In [25]: # Addition
         a=12
         b=13
         c=a+b
         print(c)
         25
In [2]: # Subtraction
         a=25
         b=12
         c=a-b
         print(c)
         13
In [3]: # Multiplication
         x=5
         y=3
         z=x*y
         print(z)
         15
In [4]: # Division
         x=20
         y=5
         z=x/y
         print(z)
         4.0
In [5]: # Modulus
         a=10
         b=3
         c=a%b
         print(c)
         1
In [6]: # Floor Division
         a=10
         b=3
         c=a//b
         print(c)
         3
```

```
In [7]: # Power of a Number
a=int(input("Enter the number "))
b=int(input("Enter the power "))
c=a**b
print(c)

Enter the number 2
Enter the power 3
8
```

Print

Multiple Assignments

```
In [16]: a,b,c=10,20,30
    print(a,b,c)

10 20 30

In [19]: a=b=c=d=6
    print(a,b,c,d)
    6 6 6 6

In [20]: a,b,c=1,4.5,'hello'
    print(a)
    print(b)
    print(b)
    print(c)

1
4.5
    hello
```

Miscellaneous Basic Programs

```
In [5]: # Cocatenation of numbers
         x=input('Enter the number ')
         y=input("Enter the number ")
         z=x+y
         print(z)
         Enter the number 56
         Enter the number 78
         5678
 In [6]: # Concatenation of 5 numbers
         a=input('Enter the number ')
         b=input('Enter the number ')
         c=input('Enter the number ')
         d=input('Enter the number ')
         e=input('Enter the number ')
         x=a+b+c+d+e
         print(x)
         Enter the number 1
         Enter the number 2
         Enter the number 3
         Enter the number 4
         Enter the number 5
         12345
In [10]: # Swapping
         a=int(input("Enter the first number "))
         b=int(input("Enter the second number "))
         print("Before Swap,a=",a)
         print("Before Swap,b=",b)
         a=a+b
         b=a-b
         a=a-b
         print('After Swap, a=',a)
         print('After Swap, b=',b)
         Enter the first number 45
         Enter the second number 89
         Before Swap, a= 45
         Before Swap, b= 89
         After Swap, a= 89
         After Swap, b= 45
```

```
In [11]: # Reverse of a number
         a=int(input('Enter the number '))
         print('Before reversing',a)
         Dig1=a%10
         Dig2=a//10
         b=Dig1*10+Dig2
         print('After reversing',b)
         Enter the number 67
         Before reversing 67
         After reversing 76
In [13]: #Circumference of a Circle
         r=float(input('Enter the radius: '))
         p=2*3.14*r
         print("Circumference of the circle is =",p)
         Enter the radius: 4
         Circumference of the circle is = 25.12
In [14]: #Perimeter of a Rectangle
         l=float(input('Enter the length: '))
         w=float(input('Enter the width: '))
         p=2*(1+w)
         print("Perimeter of the rectangle = ",p)
         Enter the length: 5
         Enter the width: 6
         Perimeter of the rectangle = 22.0
In [15]: #Perimeter of a Rectangle with Unit
         l=float(input('Enter the length: '))
         w=float(input('Enter the width: '))
         p=2*(1+w)
         print("Perimeter of the rectangle =",p,"m^3")
         Enter the length: 2
         Enter the width: 3
         Perimeter of the rectangle = 10.0 m<sup>3</sup>
In [16]: #Volume of Sphere
         radius=float(input('Enter the radius: '))
         vol=(4/3)*3.1416*(radius*radius*radius)
         print("Volume=",vol)
         Enter the radius: 4
         Volume= 268.0832
In [17]: #Volume of cube
         a=int(input('Enter the length: '))
         V=a*a*a
         print("Volume=",V)
         Enter the length: 5
         Volume= 125
```

```
In [18]: #Volume of Cylinder
         r=float(input("Enter the radius: "))
         h=float(input("Enter the height: "))
         V=3.14*r*r*h
         print("Volume=",V)
         Enter the radius: 3
         Enter the height: 5
         Volume= 141.2999999999998
In [20]: # Area of Square
         a=int(input("Enter the length "))
         Area=a**2
         print("Area=",Area,"m^2")
         Enter the length 4
         Area= 16 m^2
In [21]: # Area of a Rectangle
         l=int(input("Enter the length "))
         w=int(input("Enter the width "))
         Area=1*w
         print("Area=",Area,"m^2")
         Enter the length 3
         Enter the width 2
         Area= 6 \text{ m}^2
In [22]: # Area of a circle
         r=int(input("Enter the radius "))
         Area=3.14*(r**2)
         print("Area=",Area,"m^2")
         Enter the radius 7
         Area= 153.86 m^2
In [ ]:
```