```python
#Comment in Python - Non readable code represented by '#'

a = 5
print(a)       #output = 5

#Data Types -
#! Int => Integer Numbers

print(type(a))
#output = <class 'int'>
#It means type of 'a' is "integer".


5
<class 'int'>


#! Float => Decimal Numbers
b = 2.5
print(b)
print(type(b))      #Output => <class 'float'>
type(b)             #Output => float

2.5
<class 'float'>

float


#! String => Alphabets
c = "Coding Ideas!"
print(c)
print(type(c))   #Output => <class 'str'>

Coding Ideas!
<class 'str'>


#! Boolean => True or False
a = 5.5
print(a > 5)   #Output => True
b = a < 5
print(b)       #Output => False
print(type(b)) #Output => <class 'bool'>

True
False
<class 'bool'>

#Logical Operators in Python =>  <,>,>=,<=
```

```python
#Mathematical Operators
#! Additional Operator (+)
a = 10
b = 15
print(a+b)    #Ouput => 25

c = a+b
print(c)      #Ouput => 25

#! Subtraction Operator (-)
print(a-b)   #Output => -5
d = b - a
print(d)     #Output => 5

#! Division Operator (/)
print(a/b)     #Output => 0.66666
e = b / a
print (e)      #Output => 1.5
print(15 / 2)  #Output => 7.5

#! Multiplication Operator
print (a * b)   #Output => 150
m = a * b
print(m)        #Output => 150

# !Modulus or Modulo Operator => Is used for printing the remainder -
%
print(a % b)   #Output => 10
n = b % a
print(n)       #Output => 5
print(15 % 6)  #Output => 3

#! Floor division - // => Whole number and cuts out all the other
decimals
print(36 // 7)  #Output => 5

# Difference between / and //
print(19 / 3)   #Output => 6.3333333
print(19 // 3)  #Output => 6

#! Exponentiation Operator - Gives out the power of the left number **
x = 10
y = 3
print(x ** y)   #Output => 1000
z = x ** y
print(z)        #Output => 1000
```

```
print( 2 ** 8)  #Output => 256
print(7 ** 3)   #Output => 343
```

```
25
25
-5
5
0.6666666666666666
1.5
7.5
150
150
10
5
3
5
6.333333333333333
6
1000
1000
256
```