#Basics

2+3 = 5

4+8 = 12

9*4 = 36

4/4 = 1

5/2 = 2.5

5//2 = 2

8+9-7 = 10

8+9- #ERROR

8+2*3 #BODMAS = 14

2*2*2 = 8

2**2 = 4 #Power function

10%3 = 1 # "%" returns the remainder

print("Hello World") # "print" is used for printing a statement

print('Hello World') # Instead of double quotes you can use single quotes also

print("Hello"+"Hi") #output= HelloHi, there is no space in between "Hello" and "Hi"

print("Hello","Hi") #output= Hello Hi, putting a ',' in-between 2 strings will automatically give a space.

print(10*"Hello World") # output = Will print Hello World 10 times

print('Raman's Laptop') #ERROR - because wrong use of single quotes... confusion created

print('Ramam\'s laptop') # '\' using this slash you will be able to solve the above ERROR

print("Eminem\nPython") # "\n" This "back-slash n" will print the statement on a new line,
output= Eminem

Python

#Variables

```
x=2             # Here 'x' is a  integer variable and value '2' is assigned to variable 'x'
print(x+3)      #output = 5
y=5.5           # Here 'y' is a float data type variable and value 5.5 is assigned to it
print(y)
print(y+x)      #output = 7.5
print(x*y)       #output = 11
print(x**2)     #output = 4
#Perform any function you want

z=10
print(bool(z>1))        #bool data type, return either True or False, output - True

x=1+4j                  #complex data type
y=2+3j
print(x+y)              #output - 3+7j, syntax -(x+yj)

print(id(x))            #id() - This function will print the address of variable x
print(type(x))          #type() -  This function will print, to which class x belongs to, i.e
                        # Output =    <class 'int'>
```

#Strings

```
name="youtube"          # Assigning value "youtube" to variable 'name'
print(name)

print(name[0])          # [0] - will print the first character of the string, output - y
print(name[1])          # [1] - will print the second character of the string, output - o
print(name[-1])         # [-1] - will print the last character of the string, output - e
print(name[0:2])        # [0:2] - this means it will take all characters from index 0 to index 2 but it will not include value present at index 2, output - yo
print(name[1:4])        #output - out
print(name[1:])         #output - outube,  it will take all characters after index value 1 as it is kept blank
print(name[:4])         #output - yout, will take all values upto index 4(value present at index 4 will be excluded)
print(name[0:10])       #output- youtube, Though there are not 10 characters in name but it will not give any error and print name till it reaches the last character instead.
print(name[0:7:2])      #output- yuue, Syntax - [start:stop:step], the '2' is there to make characters jump(skip)
#So in string 'youtube' from index 0 to 7, n-1 characters will be skipped and then printed, (where n=2)
print(name[0:7:3]))     #output - yte, here n=3, so n-1=2, therefore 2 characters will be skipped

print(name[::-1])       #output - ebutuoy , this will print your string in reverse order

print(len(name))        # output - 7, len() function will return the length of the string i.e is number of characters present
```