ASSIGNMENT- 1

1. Write a python program to input two numbers and do all basic arithmetic operations on them.

Code:-
```python
no1=int(input("Enter the no 1: "))
no2=int(input("Enter the no 2: "))
print("no1 + no2 = ",no1+no2)
print("no1 - no2 = ",no1-no2)
print("no1 * no2 = ",no1*no2)
print("no1 / no2 = ",no1/no2)
print("no1 // no2 = ",no1//no2)
print("no1 % no2 = ",no1%no2)
```

o/p:-
```
Enter the no 1: 10
Enter the no 2: 5
no1 + no2 =  15
no1 - no2 =  5
no1 * no2 =  50
no1 / no2 =  2.0
no1 // no2 =  2
no1 % no2 =  0
```

2. Write a python program to input two numbers and swap their values without using any third variable.

Code:-
```python
no1=int(input("Enter the no 1: "))
no2=int(input("Enter the no 2: "))
print("Before swapping the value of no1 is",no1,"no2 is",no2)
no1=no1+no2
no2=no1-no2
no1=no1-no2
print("After swapping the value of no1 is",no1,"no2 is",no2)
```

Code:-
```python
no1=int(input("Enter the no 1: "))
no2=int(input("Enter the no 2: "))
print("Before swapping the value of no1 is",no1,"no2 is",no2)
no1,no2=no2,no1
print("After swapping the value of no1 is",no1,"no2 is",no2
```
o/p:-
```
Enter the no 1: 5
Enter the no 2: 6
Before swapping the value of no1 is 5 no2 is 6
After swapping the value of no1 is 6 no2 is 5
```

3. Write a python program to input the temperature in Fahrenheit and change it to Celsius.

Code:-
```python
far=int(input("Enter tthe temp in Farnite :"))
cel= ((far-32)*5/9)
print("The faranite is ",far,"celsius is",cel)
```

o/p:-
```
Enter tthe temp in Farnite :50
The faranite is  50 celsius is 10.0
```

4. Write a python program to input the basic salary of a person and compute its TA (20% of basic), DA (120% of basic), HRA (30% of basic), Gross (basic + ta + da + hra).

Code:-
```python
basic=float(input("Enter the basic salary of the employee :"))
TA=1/5*basic
DA=120/100*basic
HRA=30/100*basic
gross=(basic+ TA+ DA + HRA)
print("The basic salary of the employee is ",basic,"TA is ",TA,"DA is ",DA,"HRA is ",HRA,"gross is ",gross)
```

o/p:-
```
Enter the basic salary of the employee :700000
The basic salary of the employee is  700000.0 TA is  140000.0 DA is  840000.0 HRA is  210000.0
gross is  1890000.0
```

5. Write a python program to swap three variables.

Code:-
```python
no1=int(input("Enter the no 1: "))
no2=int(input("Enter the no 2: "))
no3=int(input("Enter the no 3: "))
print("The value of no1 is",no1,"no2 is",no2,"and no3 is ",no3)
no1=no1+no2+no3
no2=no1-(no2+no3)
no3=no1-(no2+no3)
no1=no1-(no2+no3)
print("After swapping he value of no1 is",no1,"no2 is",no2,"and no3 is ",no3)
```

Code:-
```python
no1=int(input("Enter the no 1: "))
no2=int(input("Enter the no 2: "))
no3=int(input("Enter the no 3: "))
print("The value of no1 is",no1,"no2 is",no2,"and no3 is ",no3)
no1,no2,no3=no3,no1,no2
print("After swapping he value of no1 is",no1,"no2 is",no2,"and no3 is ",no3)
```

o/p:-

```
Enter the no 1: 5
Enter the no 2: 6
Enter the no 3: 11
The value of no1 is 5 no2 is 6 and no3 is   11
After swapping he value of no1 is 11 no2 is 5 and no3 is   6
```

6. Write a python program to evaluate the expression
4x^4 + 3y^3 -9z + 6

Code:-

```
x=int(input("Enter the value for x: "))

y=int(input("Enter the value for y: "))

z=int(input("Enter the value for z: "))

print("The result of the expression : 4x^4 + 3y^3 -9z + 6 = ",(4*x**4) + (3*y**3) -(9*z) + 6 )
```

o/p:-

```
Enter the value for x: 5
Enter the value for y: 6
Enter the value for z: 7
The result of the expression : 4x^4 + 3y^3 -9z + 6 =   3091
```