Week-1

1) Write a python program to add 2 numbers

```
a = 10
b = 20
c = a + b
Print ("The sum is:", c)
```

Output:
```
The sum is: 30
```

2) Write a python program to find total and average of 4 subjects.

```
a = int (input ("Enter a value:"))
b = int (input ("Enter b value:"))
c = int (input ("Enter c value:"))
d = int (input ("Enter d value:"))
total = a + b + c + d
Average = total/4
Print ("The total is:", total)
Print ("The Average is:", Average)
```

Output:
```
Enter a Value : 10
Enter b value: 20
Enter c value: 30
Enter d value: 40
The total is : 100
The Average is : 25
```

3) Write a python program to perform all arthemetic operators.

```
a = int (input ("Enter a value")
b = int (input ("Enter b value"))
c print ("The add is:", a+b)
print ("The sub is:", a-b)
print ("The Multiply is:", a*b)
print ("The Division is:", a/b)
print ("The Exponential is:", a**b)
```

```
print ("float division is :", a//b)
```

Output:

```
a = 10
b = 5
The add is : 15
The sub is : 5
The Multiply is : 50
The Division is : 2
The Exponential is : 1,00,000
The float division : 0
```

4) Write a python program to calculate compound intrest.

```
P = int(input ("Enter principle amount"))
r = int(input ("Enter rate of amount"))
n = int(input("Enter no. of times intrest applied"))
t = int(input("Enter time period in year"))
ci = p*((1+r/(100*n))**(n*t))-p
Print ("Compound intrest: ", ci)
```

Output:

```
P = 20000
r = 2
n = 3
t = 1
ci = 40,400
```

5) Write a python program to find the distance between 2 points (x_1, y_1), (x_2, y_2)

```
x1 = int(input ("Enter coordinate x1: "))
x2 = int(input ("Enter coordinate x2: "))
y1 = int(input ("Enter coordinate y1: "))
y2 = int(input ("Enter coordinate y2: "))
d = ((x2-x1)**2 + (y2-y1)**2)**1/2
Print ("Distance = ", d)
```

Output:

$x_1 = 2$
$x_2 = 5$
$y_1 = 4$
$y_2 = 6$
Distance $= 3.605$

1) Write a python program to check a number even or odd

```
num = int (input ("Enter any number"))
if (num./.2 ==0):
Print ("Given number ", num , "is even")
else:
    Print ("Given number ", num, "is odd")
```

Output:

```
num=9
Given number 9 is odd
```

2) Write a python program to find the greatest of 3 numbers using celif1.

```
num 1 = float (input ("Enter first number"))
num 2 = float (input ("Enter second number"))
num3 = float (input ("Enter third number"))
if ((num1 ≥ num 2) and (num1 >= num 3)):
    largest = num1
elif ((num2 >= num1) and (num1 >= num 3)):
    largest = num 2
else:
    largest = num3
Print ("The largest no is: ", largest)
```

Output:

```
num1 = 32.30
num2 = 5.06
num3 = 1.01
The largest no is: 32.30
```

3) Write a python program to find the grade of student

```
Marks = 92
if ((Marks >=90) and (Marks < 100)):
Print ("grade 0")
```

```python
elif ((marks >= 80) and (marks < 90)):
    Print ("grade A")
elif ((marks >= 70) and (marks < 80)):
    Print ("grade B")
elif ((marks >= 60) and (marks < 70)):
    Print ("grade C")
elif ((marks >= 50) and (marks < 60)):
    Print ("grade D")
else:
    Print ("fail")
```

Output:

grade 0

4) Write a python program to find the greatest of 3 numbers using nested if statement.

```python
a, b, c = 10, 20, 30
if (a > b):
    if (a > c):
        Print ("a is greatest")
    else:
        Print ("c is greatest")
elif (b > c):
    Print ("b is greatest")
else:
    Print ("c is greatest")
```

Output:

c is greatest

5) Write a python program to print the factorial of a number using for loop

```python
n = int(input("Enter n Value"))
fact = 1
for i in range(1, n):
    i = i + 1
    fact = fact * i
```

```
print (fact)
```
Output:

Enter n Value : 6
```
        720
```

6) Write a python program to print the fibanacei series using while loop
```
a = 0
b = 1
n = int (input ("Enter the Value of n"))
Print (a)
Print (b)
while (n > 0):
    c = a + b
    Print (c)
    a = b
    b = c
    n = n - 1
```
Output:

Enter the value of n:
```
        0
        1
        1
        2
        3
        5
        8
        13
```

7) Write a python program to print prime numbers
```
for n in range (1, 20):
    c = 0
    for i in range (2, (n//2 + 1)):
        if (n %.i == 0)
            c = c + 1
            break
    if (c == 0 and n! = 1):
        Print (n)
```

Output :

2
3
5
7
11
13
17
19