

# Assignment 4

## 1. Write a Python Program to Find the Factorial of a Number?

In [25]:

```
import math
num = int(input("Enter the number "))
print("factorial of the number {} is {}".format(num, math.factorial(num)))
```

Enter the number 5  
factorial of the number 5 is 120

## 2. Write a Python Program to Display the multiplication Table?

In [31]:

```
num = int(input("Enter a number "))
end = int(input("Enter the end value "))

for i in range(1,end + 1):
    print(f" {num} x {i} =" ,num*i )
```

Enter a number 56  
Enter the end value 14  
56 x 1 = 56  
56 x 2 = 112  
56 x 3 = 168  
56 x 4 = 224  
56 x 5 = 280  
56 x 6 = 336  
56 x 7 = 392  
56 x 8 = 448  
56 x 9 = 504  
56 x 10 = 560  
56 x 11 = 616  
56 x 12 = 672  
56 x 13 = 728  
56 x 14 = 784

## 3. Write a Python Program to Print the Fibonacci sequence?

In [42]:

```
num = int(input("Enter a number "))

a = 1
b = 1
value = []
for i in range(num):
    value.append(a)
    a,b = b,a+b
print (value)
```

Enter a number 20  
[1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181, 6765]

## 4. Write a Python Program to Check Armstrong Number?

In [47]:

```
num =int(input("Enter a number "))

start = 0
a = b
while a > 0:
    cal = a % 10
    start += cal ** 3
    a //= 10

if b == start:
    print(f"{num} is an Armstrong number")
else:
    print(f"{num} is not an Armstrong number")
```

Enter a number 1054  
1054 is not an Armstrong number

## 5 . Write a Python Program to Find Armstrong Number in an Interval?

In [9]:

```
num1 =int(input("Enter a number "))

for num in range(1, num1 + 1):
    temp=num
    sum=0
    while temp>0:
        digit=temp%10
        sum= sum+ digit**3
        temp=temp//10
    if sum==num:
        print (num)
```

Enter a number 255  
1  
64  
125  
153  
216

## 6. Write a Python Program to Find the Sum of Natural Numbers?

In [13]:

```
num = int(input("Enter a number "))

natural = 0
if num > 0:
    num = (num*(num+1))/2
    print (num)
```

Enter a number 55  
1540.0

In [ ]: