

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

```
In [12]: # taking input from user
num = int(input("Enter the number : "))

fac = 1

# checking whether number is below zero
if num < 0:
    print("factorial below zero does not exist")
# checking whether number is equal to zero
elif num == 0:
    print("the factorial of zero is one")
else:
    for i in range(1,num+1):
        fac = fac * i
    # displaying value of num
    print("the factorial of " + str(num) + " is " + str(fac))
```

Enter the number : 4
the factorial of 4 is 24

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

```
In [13]: # taking input from user
num = int(input("Enter the number : "))

for i in range(1,11):
    print(num*i)
```

Enter the number : 11
11
22
33
44
55
66
77
88
99
110

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

```
In [2]: num = int(input("Enter the number "))

n1 = 0
n2 = 1
count = 0

while count < num:
    print(n1)
    nth = n1 + n2
    n1 = n2
    n2 = nth
    count += 1
```

Enter the number 4
0
1
1
2

4. Write a Python Program to Check Armstrong Number?

```
In [1]: # taking input from user
num = int(input("Enter the integer : "))
n = len(str(num))

sum = 0

temp = num
while temp > 0:
    digit = temp % 10
    sum += digit ** n
    temp //= 10

# display the result
if num == sum:
    print(num,"is an Armstrong number")
else:
    print(num,"is not an Armstrong number")
```

Enter the integer : 407
407 is an Armstrong number

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

```
In [5]: # taking input from user

lower = int(input("Enter the lower value : "))
```

```
upper = int(input("Enter the upper value : "))

for num in range(lower, upper + 1):
    order = len(str(num))
    sum = 0
    temp = num
    while temp > 0:
        digit = temp % 10
        sum += digit ** order
        temp //= 10

    if num == sum:
        print(num)
```

```
Enter the lower value : 1
Enter the upper value : 200
1
2
3
4
5
6
7
8
9
153
```

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

```
In [16]: # taking input from user
num = int(input("Enter the value : "))
sum = 0

if num > 0:
    while(num > 0):
        sum = sum + num
        num = num - 1
    print(sum)
else:
    print('please enter positive value')
```

```
Enter the value : 50
1275
```

```
In [ ]:
```